

Models for evaluating the condition of school-based libraries and the quality of their web sites

Irene González-Mateos
Cristina Faba-Pérez *

Article received on:
April 23, 2013.

Article accepted on:
November 19, 2013.

ABSTRACT

This paper approaches two objectives: 1) to develop a comprehensive model of 44 indicators to assess the performance or status of school libraries, and 2) to design a specific model of 30 objective features to assess the quality of school-based library websites. In 2012, researchers documented the practical application of both models in school-based libraries in the City of Badajoz located in the region of Extremadura, Spain, in order to ascertain indicator validity and develop a library ranking in accordance with operational quality of the respective websites. Results show there is no correlation between the rank of school libraries based on current conditions and the quality rank of their associated websites.

* Both authors belong to the Universidad de Extremadura, Badajoz, Spain. (igonzmat@alcazaba.unex.es), (cfabper@unex.es)

Keywords: School libraries; Evaluation Models; Performance; Websites; Badajoz.

RESUMEN

Modelos para evaluar la situación de las bibliotecas escolares y la calidad de sus sitios web

Irene González-Mateos and Cristina Faba-Pérez

El presente trabajo tiene dos objetivos: desarrollar un modelo exhaustivo de 44 indicadores para evaluar el funcionamiento o la situación de las bibliotecas escolares; y diseñar un modelo específico de 30 características para valorar objetivamente la calidad de los sitios web de las bibliotecas escolares. Además, se lleva a cabo la aplicación práctica de ambos modelos sobre las bibliotecas escolares de la ciudad de Badajoz (en la región de Extremadura, España) en 2012 con la finalidad de comprobar la validez de los modelos y obtener un *ranking* de las bibliotecas atendiendo a su situación y a la calidad de sus sitios web. Entre los resultados hallados se demuestra que no existe correlación entre el *ranking* obtenido por las bibliotecas escolares atendiendo a su situación actual y al *ranking* de calidad de sus sitios web.

Palabras clave: Bibliotecas escolares; Modelos de evaluación; Funcionamiento; Sitios web; Badajoz

INTRODUCTION

The interest in the study of school libraries in Spain is progressively reinforced by several national laws of education arising from 1990 (LOGSE 1990,¹ LOCE 2002,² LOE 2006³ y LOMCE 2012⁴). The main objective of

1 LOGSE, *Ley 1/1990, de 3 de octubre, de Ordenación General del Sistema Educativo* (Law 1/1990, October 3, of General Organization of the Education System) (BOE 3/10/1990).

2 LOCE, *Ley Orgánica 10/2002, de 23 de diciembre, de Calidad de la Educación* (Organic Law 10/2002, December 23, of Quality of Education) (BOE 24/12/2002).

3 LOE, *Ley Orgánica 2/2006, de 3 de mayo, de Educación* (Organic Law 2/2006, May 3, of Education) (BOE 4/5/2006).

4 LOMCE, *Ley Orgánica de Mejora de la Calidad Educativa* (Organic Law for Improvement of Education Quality), Version 2 03/12/2012. Available in http://www.ara.cat/societat/esborrant-lomce_ARAFIL20121203_0003.pdf

school libraries is to serve all the non-university community, by being a key element to: a) support the work of students and teachers; b) develop information skills and training in the use of information sources; c) support curriculum development and achievement of objectives; d) develop learning autonomy and the ability to learn throughout life. Nowadays, the education model that implies learning to use information is known as Information Literacy or Information Competence. According to the American Library Association (ALA, 1989), Information Literacy generates persons who have learned how to learn and know how to do it because they know how knowledge is organized, how to find information and how to use it so others can learn from them.

However, in order that a school library provides an adequate learning to its users, two conditions are required: a correct functioning and continuous update regarding information and communication technologies (ICTs), including Internet and the World Wide Web. To verify both premises it is required to develop models allowing to evaluate both, the functioning or condition of school libraries and the characteristics of their websites.

The assessment of school libraries condition at international level is performed by entities such as the International Association of School Librarianship (IASL), European Network for School Libraries and Information Literacy (ENSIL) or the International Federation of Library Associations and Institutions (IFLA). The latter has the School Library Guidelines (2002), which includes a list of evaluation indicators whose application allows to know the reality of school libraries in different geographical areas. In Spain, official documents and national evaluations have been developed and carried out promoted by important entities such as the *Federación Española de Asociaciones de Archiveros, Bibliotecarios, Arqueólogos, Museólogos y Documentalistas* (ANABAD) (Spanish Federation of Archivists, Librarians, Archeologists, Museologists and Documentarists), the *Federación Española de Sociedades de Archivística, Biblioteconomía, Documentación y Museística* (FESABID) (Spanish Federation of Archivistics, Librarianship, Documentation and Museology Associations) (1997), the Germán Sánchez Ruipérez Foundation (FGSR) (Marchesi and Miret, 2005) or the Ministry of Education (2011). At regional level, specifically in Extremadura, there are also some investigations on school libraries condition (Faba-Pérez, 2000; Junta de Extremadura, 2006; Pomet Correa, 2006; Tejero Aparicio, 2006; Cruz Solís, 2008).

Regarding the evaluation of school library websites through characteristic analysis, this is based on the fact that websites, no matter how different these are, have common characteristics or quality indicators to which a different score may be assigned for each particular web. These characteristics can

be subjective (collected by the analyst) and formal (collected automatically, which justifies their objectivity) (Faba-Pérez, Guerrero-Bote and Moya-Ane-gón, 2004). There are many works on website evaluation applying and/or developing characteristic indicators in general contexts (Codina, 2000; Zhan-gy Dran, 2000; González, Lores and Pascual, 2001; Jiménez Piano, 2001; Hassan Montero and Martín Fernández, 2003; Alonso, 2007/2008). Several evaluation studies of characteristics in files have been performed in the in-formation units' context (Roba Stuart, 2003; Crespo, 2007; Kim and Lee, 2007; Más Bleda and Chaín Navarro, 2009; Sanz-Caballero and Faba-Pérez, 2012) and in libraries, especially in university libraries (Chao, 2002; Pinto et al, 2005; González-Lucio et al., 2009). However, in the case of school libra-ries, it is difficult to find this type of research, although the works of Clyde (2004), Large and Beheshti (2005), Rodríguez Palchevich (2010) or Jimé-nez-Fernández (2012) can be mentioned.

The objective of this work is double: in one hand, to develop an exhaus-tive model allowing to evaluate the functioning or condition of school libra-ries; and in the other, to design a specific characteristic model allowing to objectively evaluate the quality of school library websites. In addition, the practical application of both models was carried out in the school libraries of the city of Badajoz (in the region of Extremadura, Spain) to verify the validi-ty of the models and obtain a ranking of the libraries considering their con-dition and the quality of their websites. The last issue presents the hypothesis that a correlation must exist between the ranking obtained by school libra-ries considering their current condition and the ranking of websites quality.

DATA AND METHODOLOGY

Data

The practical application of models designed in this work, which are detai-led in the Methodology section, was carried out in school libraries of public, private and government-dependent private *Institutos de Enseñanza Secundaria* (IES) (Junior High Education Institutes) and *Colegios de Educación Infantil y Primaria* (CEIP) (Kindergarten and Elementary Education Schools) of the city of Badajoz during 2012 (49 centers). The official source used to collect the edu-cational centers was EDUCAREX (<http://www.educarex.es/web/guest/lista-do-centros>), of the *Consejería de Educación y Cultura* (Council for Education and Culture) of Extremadura. From the initial 49 centers, 30 were included in the study (*Tables I and II*), those fitting the designed model.

Table I. Participation data.

Centers		Initial	Final	Percentage of participation
Institutes		11	8	72.73%
Schools	Public	25	19	76.00 %
	Private and government-dependent private	13	3	23.08 %
Total		49	30	61.22 %

Table II. List of participating centers

IES	CEIP (public and private and government-dependent private)	
Bárbara de Braganza	Arias Montano	Manuel Pacheco
Castelar	Cerro de Reyes	Ntra. Sra. de Bótoa
Reino Aftasí	Enrique Iglesias García	Ntra. Sra. de Fátima
Rodríguez Moñino	Enrique Segura Covarsí	Ntra. Sra. de la Soledad
San Fernando	General Navarro	Puente Real
San José	Juan Vázquez	San José de Calasanz
San Roque	Juventud	Santa Marina
Zurbarán	Leopoldo Pastor Sito	Santo Tomás de Aquino
	Lope de Vega	Diocesano (San Atón) (private)
	Luis de Morales	Jesús Obrero (private)
	Luis Vives	Sagrada Familia (private)
8	22	

Methodology

Method for the evaluation of school libraries condition

The information obtained for each one of the 44 questions from each participant is analyzed with the objective to carry out a joint or global study of the information provided by the 30 participating centers and to obtain a general approximation on the actual condition of school libraries in the city of Badajoz in 2012.

Finally, an individualized ranking is performed for school libraries considering the particular condition of each one in relation with the designed model. Thus, each of the questions in the model is put into context and clarified, reducing the 44 original questions to 32, verifying the presence (1) or absence (0) of each question in the model completed by each center.

Method for the evaluation of school library websites

First, a model with 30 characteristics is designed to evaluate school library websites, with two types of characteristics: 10 general and 20 specific. The

first type allows a global view of how a web intended for elementary and junior high students must be, resulting from the review of some works like Marquès Graells (1999), Jiménez Piano (2001) or Sanz-Caballero and Faba-Pérez (2012); while the essential specific characteristics in a school library web are encouraged by ICTs, feedback from students, and educational contributions, among others. Specific school library webs and works of authors in this discipline such as Marquès Graells (2001), Clyde (2004) and Large & Beheshti (2005) were consulted to collect these characteristics (*Table III*).

Table III. Characteristic model for the evaluation of school library webs.

Characteristics	Meaning
General	
1. Is the URL clear?	The URL is easily identifiable as belonging to the school's or institute's library.
2. Is it easy to navigate?	Easiness to access anyplace in the website.
3. Is it user-friendly, familiar and appealing?	Presents a manageable and accessible structure for the user.
4. Doesn't it have information overload?	This is avoided with a correct use of colors, typographic effects and groupings to differentiate information.
5. Does it have a clear and concise language?	It uses an adequate language for kindergarten, elementary or junior high students.
6. Is proper spelling and grammar used?	Information must be well written without spelling mistakes.
7. Is there certain regularity in web information updates?	Considering it is an educational web, it is important it offers updated information.
8. Does it have a consistent design?	The website must be visually pleasing (warm colors, legible font, etc.).
9. Is there is a person or group in charge of maintenance?	Website favors clear identification of people responsible for its maintenance.
10. Can people responsible for the website be contacted?	Easiness to contact the administrators (e-mail, phone number, etc.).
Specific	
11. Does the website follow up on school library activities in the center?	Indicates all the activities carried out in the library: workshops, theater, reading club, etc.
12. Does the website follow up on the activities of the educational center?	Indicates all the activities carried out in the center: trips, awards, novelties, etc.
13. Does it promote reading?	Recommends readings, carries out reading games, informs on new books, etc.
14. Does it have links to institutions related to the school library?	Specifies links to other webs with relevant information (other libraries, other centers, etc.).
15. Does it provide links to teaching resources?	Specifies support links for subjects and teachers.
16. Does it provide materials to work online?	For example: coloring pages, books online, games, etc.
17. Does it allow students to include their creations?	Website allows students to publish their stories, drawings, etc.

18. Does it present contents adapted to school community?	Although contents are focused on students, other groups like teachers are not left aside.
19. Does it provide an adequate and innovative material?	Material must be original and adequate for the age target group.
20. Does it present dynamic aspects?	It has an attractive design for students, with animations (photos, videos, color, etc.).
21. Are images appearing in the library website correctly named?	It is important that images and other resources are correctly named and indicate their source.
22. Does it allow an easy access to previously published material?	It is beneficial to access previous publications rapidly to carry out consults, works, etc.
23. Does it have an online catalog of the school library funds?	It is important that catalogs are automated and students can search anything inside and outside the center.
24. Does it allow to download audiovisual material?	It allows to download audiovisual resources required for learning (videos, images, songs, etc.).
25. Do students interact in the library website?	Students can make comments, publications, etc.
26. Does the school library have a distinctive pet or logo?	It is important the library web reflects this fact, because this way students can rapidly identify the school library.
27. Does it promote the use of information and communication technologies?	It must propose activities favoring the development of skills such as consult, search, selection, valuation, etc.
28. Does the website facilitate a rapid reading?	Contribution contents must be brief texts, since it facilitates its reading.
29. Does it have online support services?	There are forums, chat, work groups, etc.
30. Is it multilingual?	Due to the growing number of foreign students, it is important to offer multilingual contents.

Second, an individualized ranking of school libraries is generated considering the quality of their websites according to the designed model. To indicate if websites meet such characteristics, the degree of fulfillment of website characteristics is identified with the following scoring: 0 deficient, 0.5 sufficient and 1 notable.

RESULTS

Evaluation of school libraries condition

The model for the evaluation of school libraries condition and the percentage global results obtained on the functioning of institute and school libraries of Badajoz is shown below, considering the answers given to each one of the 44 questions included in the model (*Table IV*).

Table IV. Model and results on school libraries condition.

A. Library resources	
1. Does the Center have a library service? Options: Central, Classroom, Department, Central+Classroom, None, DK/NA	
A 100% of the analyzed educational centers have a school library. Most of the institutes currently have central library (62%), and more than 91% of schools have central and classroom libraries, opposite to 25% of the institutes.	
B. School library and center	
B.1. Integration of the library in the educational center	
2. Is there a library exclusively for teachers? Options: Yes, No, DK/NA	
Only 12% of the institutes and 14% of the schools have a library exclusively for teachers, which demonstrates the correct philosophy of a central school library with resources for all types of users.	
3. What groups does the school library serve? Options: Students, Teachers, Other (ex-alumni, parents, etc.)	
Most of the analyzed centers focus their services in students and teachers in a general fashion, not exclusive. In the institutes, 42% of the cases offer services for students and the same percentage for teachers. In schools, services are also mostly offered to students (41%) and teachers (37%) than to other groups.	
4. Is there an annual work plan for the school library? Options: Yes, No, DK/NA	
School library must be organized, so an annual work plan on its objectives throughout the course is essential. The analyzed educational centers satisfactorily meet this characteristic, since 62% of the institutes has an annual work plan, and for schools is even wider (86%).	
B.2. Relation of the library with other institutions	
5. Does the school library have a relationship with close public libraries? Options: Yes, No, DK/NA	
The relationship with public libraries is essential to promote in the students the habit of going to the library and to facilitate the encouragement of reading. In institutes, this relationship is practically nonexistent (12%) and in schools is a little bit higher, but insufficient (25%).	
6. Does it have a relationship with the Centro de Profesores y Recursos (CPR) (Center for Teachers and Resources)? Options: Yes, No, DK/NA	
It is important to maintain a relationship with the CPR since it usually organizes seminars on education, reading, etc. serving as a complement of the school library activities. Currently, only 37% of the institutes maintain some contact with the CPR opposite to 59% of the schools. A worrying fact is that 13% of the institutes does not know if such relationship exists or not.	
C. Documentary resources of school library	
C.1. Formation of documentary funds	
7. Which are the contents of the school library fund? Options: Knowledge/reference material, Literature/fiction material, Albums, Comics, Magazines, Student generated material, Maps, Audiovisual material, Games, Objects, Other	
The fund mostly available in institutes and schools is reference and knowledge material, although with relatively low percentages (23% and 16%, respectively). In institutes, this material is followed by comics, resources produced by students and audiovisual material (18%) and in schools it is complemented by audiovisual material (16%). It is significant that literature and fiction material only appears in 17% of institutes and 14% of schools, as well as the audiovisual material (increasingly important in the new information society) also with very low percentages (18% in institutes and 16% in schools).	
8. How many volumes does the school library fund have? Options: <1,000, 1,000-3,000, 3,000-5,000, 5,000-10,000, >10,000, DK/NA	

<p>► According to IFLA/Unesco school library guidelines (2002): “[...] It is recommended that these have at least 2,500 relevant and current titles to guarantee a book stock balanced for all ages, skills and personal histories”. The educational centers of Badajoz meet such guideline, since 63% of the surveyed institutes has more than 10,000 volumes and 56% of the schools has 3,000-5,000.</p>
<p>9. Are the school library funds reviewed on a yearly basis? Options: Yes, No, DK/NA</p> <p>The annual review of school library funds is important, since this is a way to maintain the material updated and to evaluate its condition. In the case of institutes in Badajoz, this review is ambiguous: in 50% of the cases it is performed, in the other 50% not. On the contrary, 91% of the schools does perform an annual review of the funds.</p>
<p>10. If the answer above is affirmative, which is the review criterion of the fund? Options: Condition of the material, Information updating, Frequency of use, Other, None, DK/NA</p> <p>The most used criteria in the institutes are condition of the material and frequency of use (with 33% in both cases). Whereas, the most used criterion in 45% of schools is the condition of the material, followed by information updating (25%) and frequency of use (22%). A very positive result is that a 100% of school libraries in Badajoz uses some review criterion.</p>
<p>11. Where does the useless material of the school library end up? Options: It is discarded, It is not discarded, DK/NA</p> <p>After the fund review, there must be a destination for those materials that are useless or inadequate to be kept by the school library. In 63% of the institutes, these materials are not discarded; however, in 95% of the schools, useless material is discarded.</p>
<p>12. What is the amount of materials annually incorporated in the school library? Options: 0, 1-100, 101-300, > 300, DK/NA</p> <p>In the educational centers of Badajoz, the number of materials annually incorporated in school libraries of institutes is 50% of those incorporating a mean number of 1-100 volumes and 50% of those incorporating 101-300 volumes. In schools, 48% of the surveyed centers incorporate a mean of 1-100 volumes.</p>
<p>C.2. Automation and organization of the funds</p>
<p>13. Is the fund automated? Options: Yes, No, DK/NA</p> <p>With the new technologies, most of the educational centers in Badajoz have an automated fund in their school libraries, which facilitates their control. All the institutes (100%) have automated funds; schools have a bit less, 86%.</p>
<p>14. If answer above is affirmative, is ABIES software used? Options: Yes, No, DK/NA</p> <p>The incorporation of Abies software in school libraries (distributed freely in all public and government-dependent private educational centers in Extremadura) has allowed that most school libraries become automated. This has resulted in the fact that 100% of the institutes and 89% of the schools with automated funds use ABIES software.</p>
<p>15. Does it have an accessions register? Options: Yes, No, DK/NA</p> <p>A 62% of the institutes and 59% of the schools in the survey have an accessions register. The alarming fact is the percentage of institutes and schools with no accessions register (38% and 41%, respectively), since it is the inventory of the library funds and where all documents comprising the collection are registered. Considering that ABIES generates a list of library funds and that 100% of the institutes and 89% of the schools use this software, it is likely that the person in charge of completing the model has not associated such list with an accessions register of the funds, therefore the high percentage of centers answering not having an accessions register.</p>
<p>16. If the answer above is affirmative, is it manual or automated? Options: Manual, Automated</p> <p>In those school libraries having an accessions register, in 50% of the institutes it is manual and in the other 50% it is automated (following the reasoning of question 15, if 100% of the institutes use ABIES, then all will have an automated accessions register. So, the 50% answering it is manual is because, in addition, these have a manual accessions register). In schools, 100% have it automated.</p> <p>►</p>

<p>► 17. Does it have catalogs? Options: Yes, No, DK/NA</p> <p>Regarding as if they have catalogs, 63% of the institutes indicates no, opposite to 59% of the schools that indicate yes. In this case, again, considering that ABIES generates a catalog of the funds and that 100% of the institutes and 89% of the schools use this software, it is probable that the person in charge of answering the survey has not associated both aspects, therefore the high percentage of centers answering not having a catalog.</p>
<p>18. If the answer above is affirmative, is it manual or automated? Options: Manual, Automated</p> <p>A 75% of the institutes and 79% of the schools having catalogs, indicated these are automated. Following the reasoning of question 17, if 100% of the institutes and 89% of the schools use ABIES, all will have an automated catalog. So, 25% of institutes and 21% of schools answering it is manual is because, in addition, these have a manual catalog.</p>
<p>19. What type of catalogs it has? Options: Authors, Subject, Systematic, Titles</p> <p>The predominant catalogs in educational centers are in general authors and titles catalogs. In this case, in institutes both catalogs are used in the same percentage (50% and 50%) and also in schools (31% and 31%).</p>
<p>20. For the technical process of the fund (cataloging, classification, subject assignment), does it use ABIES? Options: Yes, No, DK/NA</p> <p>In 100% of the institutes ABIES is used to carry out the technical process of the fund (since 100% of these is automated with this software), and in schools it is used in 86% of the cases.</p>
<p>21. If the answer above is negative, what other tools does it use? Options: Universal Decimal Classification UDC, Cataloging Rules CR, Subject Headings Lists SHL, Other</p> <p>As can be seen in the previous answer, only 14% of schools use a tool different to ABIES; among these, 50% uses UDC, 25% uses SHL and 25% uses other ad hoc tools.</p>
<p>22. Is a subject assigned to literature and fiction material? Options: Yes, No, DK/NA</p> <p>In many children's and juvenile libraries a specific subject is assigned to literature and fiction material (although this rule does not apply to remaining libraries). In the case of institutes, only 25% assigns a subject to the literature and fiction fund, opposite to 46% of schools in Badajoz.</p>
<p>23. Which is the criterion used to organize the Literature and Fiction fund? Options: UDC, Accession Number, Collections, Other</p> <p>In many cases, in children's and juveniles libraries, the literature and fiction fund has a special organization to be more attractive to children. In the educational centers in Badajoz, 75% of the institutes uses UDC for this special organization, and in schools, funds are mainly organized by cycles (38%).</p>
<p>24. Which is the criterion used to organize the Consult and Knowledge fund? Options: UDC, Accession Number, Colors, Tone Symbols, Other</p> <p>Sometimes, in children's and juveniles libraries, the consult and knowledge fund is organized differently than the rest to make the subject easier to identify. Both institutes and schools use as first option the UDC to organize the knowledge material (60% and 40%, respectively). This issue is favorable since this will be the type of organization students will find in the rest of the libraries.</p>
<p>25. Which is the distribution of the school library material? Options: Open shelves, Closed shelves, Storehouse</p> <p>One of the main contributions of the school library is that students can feel comfortable searching, consulting, asking, etc. For this, the recommendation is that the library fund is open and available so users can access it freely. Most school libraries in the analyzed institutes and schools have open shelves (67% and 76%, respectively).</p>
<p>D. Presence of school library in the Internet</p>
<p>26. The school library, does it have a website? Options: Yes, No, DK/NA</p> <p>Modern times are characterized by the so-called information society and, therefore, children are digital natives. They do not imagine a world without a computer connected to the Internet. Considering this, it is surprising that 75% of the institutes and 45% of the schools in the survey do not have a website of their school library. In this issue, it has to be mentioned that when the center indicates the library has a web it can be either a library blog or a website strictly speaking.</p> <p>►</p>

27. <i>The school library, does it have a profile in social networks (updates information, novelties, etc.)? Options: Yes, No, DK/NA</i>
Only one institute and one school have a profile in social networks.
28. <i>If the answer above is affirmative, can you indicate in which social networks? Options: Twitter, Facebook, Other</i>
From the two libraries having a profile in social networks, the institute's library preferred Twitter and the school's library preferred Facebook.
E. Facility and provision of equipment of the school library
E.1. Facility
29. <i>Which is the average surface of the school library? Option: m2</i>
The average surface of school libraries in the institutes of Badajoz is big, 120.5 m2. This average exceeds by far the surface recommended by the Real Decreto (Royal Decree) (R. D.) 132/2010, ⁵ which sets out a minimum surface of 75 m2 for the libraries of centers teaching compulsory junior high education or high school. In the case of schools in the survey, the average decreases to 43.5 m2. This is very close to the surface recommended by the mentioned R. D. for the libraries of centers teaching elementary education (45 m2).
30. <i>How many places (chair + table) it has? Option: No. of places</i>
The average number of places (chair + table) that institutes have is 47.25 places, which means 2.55 m2 per place; schools have 23.67 places, i.e., 1.84 m2 per place.
31. <i>Which are the physical characteristics of the school library? Characteristics: Access, Natural light, Location, Noise pollution, Furniture, Capacity. Options: Good, Bad, Regular, DK/NA</i>
It can be said that the institutes and schools in the survey are satisfied with the characteristics of their school library since the option Good was the average in 68.67% and 63.67%, respectively.
F. Functioning and management of the school library
F.1. Services
32. <i>What equipment does the school library have? Options: PC, Laptops, Photocopier, Scanner, Movie screens, Television, e-books, Other</i>
The majority of the equipment in school libraries in institutes and schools is PCs (37% and 25% respectively). In contrast, e-book is the most uncommon equipment in educational centers, being nonexistent in institutes and with 6% in schools (this percentage, although minimum, is a pleasant surprise given its novelty for libraries).
33. <i>How do students use the school library? Options: Reading, Lending, Classwork with consult, Classwork without consult, Use of PCs in general, Use of PCs for a search, Use of PCs for games, Other, They do not use it</i>
Reading, lending, classwork with consult and use of PCs in general are the main uses in institutes although with a low percentage (11%). In schools, the main uses students get from school libraries are lending and consults with 15% and 14%, respectively. It is strange the low use of PCs available in the library and of social networks, considering students are embedded in the information and technology society. It is worrisome that in 8% of the institutes and 5% of the schools, students do not use the library.
34. <i>How do teachers use the school library? Options: Reading, Lending, Classwork with consult, Classwork without consult, Lesson preparation, Correction of exams, Use of ICTs, Consulting references, Other, They do not use it</i>
The priority use of the school library by teachers is lending of the fund, with 15% in institutes and 14% in schools. In contrast, the least used option is consulting references with 6% in institutes and 8% in schools. It is worrisome that in 6% of the institutes and schools, teachers do not use the school library.
35. <i>What services does the school library offer? Options: Lending to students, Lending to departments, Lending to classroom, Lending laptops, Lending e-books, WiFi, Extracurricular activities, Promotion of reading/writing, Promotion of ICTs, Dissemination of funds, Other, No service</i>

►	<p>The most offered services in school libraries of institutes are lending to students (20%), extracurricular activities (18%) and promotion of reading and writing (15%). For schools in the survey, these are lending to students (18%), lending to classrooms (18%) and promotion of reading and writing (16%). Many of the main activities coincide between the two types of educational centers. Also, those services more related to information and communication technologies are the least offered in both cases (lending laptops or e-books, WiFi use and promotion of ICTs).</p>
	<p>F.2. Economic issues in management</p>
	<p>36. <i>Is there a specific budget for the school library? Options: Yes, No, DK/NA</i></p> <p>It is recommended that the educational center has an annual budget for the school library as stated in the IFLA/Unesco guidelines for school libraries (2002): "[...] The use of the budget must be carefully planned for the entire year [...]". One half (50%) of the institutes in the survey has a budget for the school library, but the other 50% does not. Regarding the schools, the number of centers with budget increases to 64%.</p>
	<p>F.3. Staff management and typologies</p>
	<p>37. <i>If the answer above is affirmative, how much is the annual budget of the library? Option: Annual budget</i></p> <p>From the institutes and schools having an annual budget for the school library, institutes have an average of € 4,140.28 and schools € 850.</p>
	<p>38. <i>When did the management of the school library begin? Options: <1980, 1980-1990, 1991-2000, 2001-2010, >2010, DK/NA</i></p> <p>In the institutes, most centers began to manage their school libraries either before 1980 or between 1990 and 2000 (25% in both options). As regards of schools, most (59%) began management more recently, 2001-2010.</p>
	<p>39. <i>Is there a person responsible for the school library management? Options: Yes, No, DK/NA</i></p> <p>In order that school library functions, it is essential to have a person in charge of the management. In the institutes and schools of Badajoz a person responsible for the management is present in 100% of the cases.</p>
	<p>40. <i>Who is in charge of the school library? Options: Language/literature teachers, Other Teachers, Librarians, Volunteers, Monitors, Members of the Center Parents' Association, Other</i></p> <p>Before indicating the person in charge of the school library in the surveyed centers, it should be considered that set out by the IFLA/Unesco guidelines for school libraries (2002): "[...] The richness and quality of the library depend on the staff resources available within and beyond the school library. For this reason, it is essential to have a well-trained and highly motivated staff, including a sufficient number of members according to school size and specific needs of library service. The staff includes graduate librarians and assistant librarians. It can also have a support staff, i.e., teachers, technicians, parents and other volunteers. School librarians must be graduated and have additional education in educational theory and pedagogy [...]". In the present study, both in institutes and schools, the main responsible person of the school library is a teacher of the center (56% and 62%, respectively). In the case of institutes, followed by a specific Language and Literature teacher (44%) and, in the case of schools, by volunteers (12%), Language and Literature teachers (11%) and staff with a Librarianship education (11%). It is worrying to verify that only 11% of the schools and none of the institutes have a person in charge with an education in Librarianship and Documentation.</p>
	<p>41. <i>If the answer above includes Librarians as the person in charge, which is their specific education in Librarianship and Documentation? Options: Educational level</i></p> <p>In schools having a person in charge with education in Librarianship and Documentation, one of them has a Bachelor's degree and a Ph.D. in Documentation, another has a Bachelor's degree in Documentation and another DK/NA.</p>
	<p>42. <i>Which functions does the person responsible for the school library have? Options: Selection and acquisition of material, Diffusion of information, Collaboration with teachers, Treatment and organization of material, Dynamism, Others, No function</i></p> <p>►</p>

- 5 R.D. 132/2010, of February 12, which sets out the minimum requirements for centers teaching the second cycle education of Kindergarten education, Elementary education and Junior High Education (BOE 12-3-2010).

► Collaboration with teachers is the most developed function in the institutes (25%), closely followed by treatment and organization of the school library fund (24%). In schools, treatment and organization of the school library fund is the most developed function (21%), followed by selection and acquisition of the material (20%).
F.4. Opening hours
43. Does it have fixed opening hours? Options: Yes, No, DK/NA
It is a promising fact that 100% of the institutes and 91% of the schools have a school library with fixed opening hours.
44. For how many hours is it open per week? Options: < 10 hours, 10-20 hours, 21-30 hours, 31-40 hours, > 40 hours
Considering all the educational centers with fixed opening hours, 63% of the institutes open 10-20 hours per week; in the case of schools, most functions in two schedules: 41% opens less than 10 hours per week and another 41% opens between 21-30 hours per week.

Once analyzed the global condition of school libraries in the city of Badajoz, a ranking is generated allowing to know the particular condition of each library. Thus, the 44 initial questions are put into context and clarified considering certain criteria, decreasing these to a total of 32 questions (Table V). The completed model annotates the presence (1) or absence (0) for each question. To avoid centers being awarded or harmed twice with the presence or absence of each question, those deriving or scoring in others are not considered for the ranking, and are not included in the table.

Table V. Template to determine the school libraries ranking according to their current condition.

No.	Question	Criterion
1	Center has a central library or central+classroom	IFLA/UNESCO (2002) RECOMMENDS CENTRAL
3	Library serves the students	Indispensable
4	There is an annual work plan	Indispensable
5	Library has a relationship with the public library	Indispensable
6	Library has a relationship with the CPR	Indispensable
7	Contents of the library has consult and fiction material	IFLA/UNESCO (2002): BOTH INDISPENSABLE
8	No. of volumes in the range 1,000-3,000 or higher	IFLA/UNESCO (2002): MINIMUM 2,500
9	Library performs an annual review of the material	Indispensable
12	No. of funds annually incorporated higher than 300	IFLA/UNESCO (2002): MINIMUM 300
13	Funds are automated	Indispensable
15	Library has an accessions register of the funds	Indispensable
17	Library has catalogs	Indispensable

20	Library uses ABIES for the technical process of the material	Indispensable
22	Library assigns a subject to the literature and fiction fund	Indispensable
23	Literature and fiction fund is not organized by accession number	Indispensable
24	Consult/knowledge fund is organized by UDC	Indispensable
25	Material is distributed in open shelves	Indispensable
26	Library has webpage	Indispensable
27	Library has a profile in social networks	Indispensable
29	Library surface is greater than 45 m2	R.D.132/2010: minimum 45 m2
30	Library knows the number of places it has	Indispensable
31	Physical characteristics of the school library are good	Indispensable
32	Essential hardware of the library is a PC	Indispensable
33	Students use some of the services offered by the library	Indispensable
34	Teachers use some of the services offered by the library	Indispensable
35	Library offers lending and/or consult (reading and writing) services	Indispensable
36	There is a specific budget for the library	Indispensable
38	Library's management began before 2010	LOE 2/2006: SUPPORTS THE BE
39	There is a person responsible for the management of the library	Indispensable
40	The responsible person is a librarian (education in Librarianship and Documentation)	Scores, given its importance
42	Basic function of the responsible person: treatment of the information and organization of the library	Indispensable
43	Library has fixed opening hours	Indispensable

Figure 1 shows the ranking of school libraries according to their current condition. From the 32 points that libraries can obtain in the 32 questions analyzed, the average in the institutes was 21.62 and 22.05 in schools.

As the distribution shows, the higher portion includes the CEIP Arias Montano with 30 points and in second place, with 27 points, the IES Bárbara de Braganza and the CEIP Manuel Pacheco, Luis de Morales and N. Sra. de Fátima. In the final part of the ranking, in the last place, the school library of CEIP Santa Marina with 14 points, followed by the library of the school Jesús Obrero with 16 points.

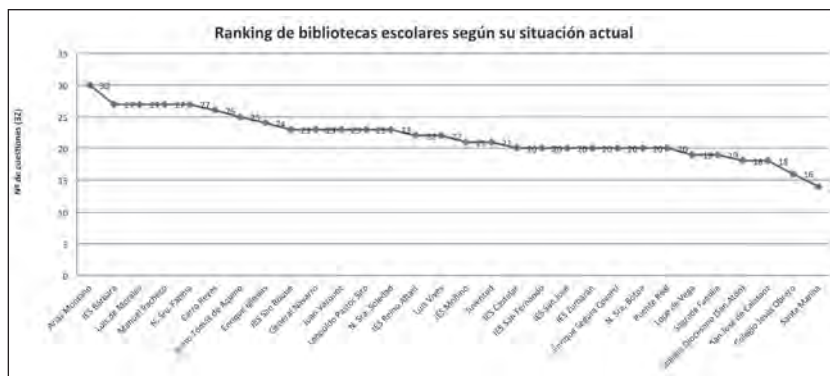


Figure 1. Ranking of libraries of institutes and schools of the city of Badajoz according to their current condition (2012).

Evaluation of school library websites

The analysis of school library websites of the educational centers was carried out using the template designed in Methodology and recording the degree of fulfillment of each characteristic in each website, as was mentioned in the relevant paragraph. From the 30 school libraries that collaborated in this study, only 12 have a website (9 CEIP, 1 private/government-dependent school and 2 IES). In some cases, website blogs were considered as a reference to analyze school library websites, since the educational center itself indicated it by mentioning a library website.

The study verifies that fulfillment of general characteristics in the webs of analyzed libraries is much higher than that of their specific characteristics (with a respective mean of 9.55 opposite to 5.15 over 12), since among the most used characteristics are the Proper use of spelling and grammar, Easy to navigate and No information overload. In contrast, characteristics less used include a Multilingual web, Interaction with students and Online support.

Figure 2 shows the ranking of school library websites of educational centers considering the 30 characteristics (10 general + 20 specific). From the 30 points that library webs can obtain in the analyzed characteristics, the general mean in institutes and schools was 16.54. The figure shows, in the upper part of the distribution where higher scores are, the school libraries of the CEIP Arias Montano (22 points) and Luis Vives (21.5 points), and the IES

6 R.D. 132/2010, of February 12, which sets out the minimum requirements for centers teaching the second cycle education of Kindergarten education, Elementary education and Junior High Education (BOE 12-3-2010).

7 LOE Ley Orgánica 2/2006, de 3 de mayo, de Educación (BOE 4/5/2006).

Bárbara de Braganza (21 points). Regarding school libraries in the lowest part of the distribution obtaining the lowest scores, the CEIP Nuestra Sra. de Fátima (9 points) and Nuestra Sra. de la Soledad (11.5 points), and the IES San Roque (12 points).

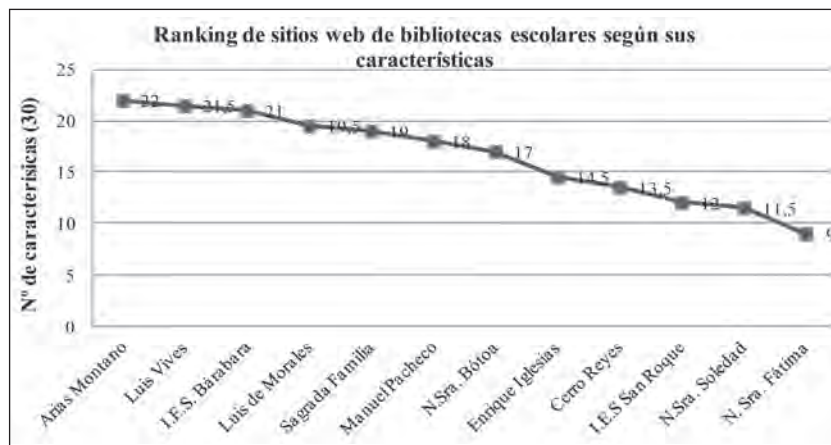


Figure 2. Ranking of library websites of institutes and schools of the city of Badajoz, according to their characteristics (2012).

Finally, Pearson's correlation was calculated among the rankings of school libraries according to scores obtained in their current condition and web evaluation. Evidently, the relation was verified only in the case of the 12 school libraries represented in the web, which obviously are included in both rankings. Pearson's correlation between both variables is very low ($r = 0.1$).

CONCLUSIONS

An exhaustive model of evaluation indicators was designed to verify school libraries condition with a total of 44 questions, and a model to evaluate their web-sites with 30 characteristics (10 general and 20 specific). By applying these models in the libraries of educational centers in the city of Badajoz (participation rate of 61.22%), the following conclusions were drawn.

Current condition

In general, the school library has an important role in the educational center, however, its potential has not been fully exploited. The mean score of libra-

ries regarding their current condition is almost outstanding, both in institutes (21.62 points: 67.6%) and in schools (22.05 points: 69%).

Favorable aspects of the current condition of libraries are the following:

- Several services are offered, both to students and teachers, and even to other groups (ex-alumni, PAS, etc.). Libraries focus on material lending, carry out extracurricular activities and promote reading and writing.
- Carry out an annual work plan and have a specific budget assigned, allowing to schedule expenses in advance by planning the activities.
- Have an extensive documentary fund that is reviewed on an annual basis, allowing a solid control. Libraries use ABIES software, which facilitates material collection and control.
- Allow the free consult of the fund by any user, and although there still is a high percentage of libraries with controlled access, this situation is decreasing.

Regarding the unfavorable aspects:

- In most of the cases, the person in charge of the library is a teacher. The presence of a librarian with education in Librarianship and Documentation with a full-time commitment is required, since few hours per week are not enough to meet the school library needs.
- An approach between school and public libraries would be favorable, since it would be very beneficial for students and currently it is an issue not well promoted.
- Tools most used by youngsters are the new information and communication technologies, and in this sector, the school library is not using all its possibilities. Although one of the easiest ways to approach students is through the internet, the majority of educational centers does not have a library webpage or a profile in social networks. If these tools get promoted, the library will be more attractive with a greater involvement of users.

The library with the highest score regarding its current condition was the CEIP Arias Montano and the most unfavorable was the CEIP Santa Marina.

Websites

The mean score obtained by the webs of school libraries considering fulfilled characteristics barely overcomes the approved score (16.54 points: 55.14%).

The fulfillment of general characteristics in analyzed library webs is greater than that of their specific characteristics, which is an encouragement to keep working in the design of models for the specific evaluation of school library webs and to transmit investigation results to those in charge of educational centers so they take necessary measures on this issue.

The observed general trend is that specific characteristics about promotion of reading are the most represented in the analyzed websites. This means that the school library has made an effort to be a point of reference for students on reading, an issue reflected on their own reading recommendations to specific age ranges, or with links to blogs and websites on stories and novels, among others.

Contents offered by school library websites is easy to read since there is no overload with large contributions; however, a lack of contents in other languages was observed, which makes a consult difficult for foreign students.

Activities for children's self-learning and promotion of new technologies were lacking. These gaps directly affect students' interaction with the school library website, that basically is nonexistent. This may be the result of a huge absence of online support by website administrators, making such interaction difficult.

The library web with the highest score was from the CEIP Arias Montano and the library web with the lowest score was from the CEIP Nuestra Sra. de Fátima.

Final conclusion

Finally, it has been demonstrated that the correlation between school libraries regarding their current condition and webpages status is very low ($r = 0.1$), so the working hypothesis, considering that school libraries with the best current functioning in the city of Badajoz are also those with better webs, can not be confirmed (although the CEIP Arias Montano obtained the maximum scores in both rankings).

REFERENCES

- Alonso, J. (2007-2008), "Comunicar en el Web: Propuesta de Criterios para Analizar Sitios en Internet", in *Teknokultura: Revista On-line*, 7:1-14, available in: <http://teknokultura.uprrp.edu/pdf/alonso.pdf> (Consulted on: 01/10/2012).
- ALA (American Library Association), Presidential Committee on Information Literacy (1989), *Final Report*, Chicago: American Library Association, available in: <http://www.ala.org/acrl/publications/whitepapers/presidential> (Consulted on: 12/10/2012).
- Chao, H. (2002), "Assessing the quality of academic libraries on the Web: the development and testing of criteria", en *Library & Information Science Research*, 24:169-194.
- Clyde, L. A. (2004), "School library Web sites: 1996-2002", in *The Electronic Library*, 22(2):158-167.
- Codina, L. (2000), "Evaluación de recursos digitales en línea: conceptos, indicadores y métodos", in *Revista Española de Documentación Científica*, 23(1):9-44.
- Crespo, S. (2007), "Archivos Históricos Provinciales en la red: análisis y evaluación", in *Boletín de la ANABAD*, 57(1):497-512.
- Cruz Solís, Antonio Miguel de la (2008), *Las bibliotecas escolares en Extremadura: antecedentes, análisis de la situación actual, necesidades e instrumentos para su implantación en el sistema educativo de la Comunidad*, tesis doctoral, Universidad de Extremadura, España.
- Díaz Sanchez, E.; Martín-Consuegra Navarro, D. y Esteban Talaya, A. (2008), "Evaluación de la eficacia de las páginas web", in Emilio José de Castro Silva y Francisco José Díaz de Castro (coordinators.), *Universidad, Sociedad y Mercados Globales*, available in: <http://dialnet.unirioja.es/servlet/articulo?codigo=2751745> (Fecha de Consulted on: 05/11/2012).
- Faba-Pérez, C. (2000), "Las bibliotecas escolares y Extremadura: un estudio comparativo nacional e internacional", in *Boletín de la ANABAD*, 50(2):119-133.
- Faba-Pérez, C.; Guerrero-Bote, V. and Moya-Anegón, F. (2004), *Fundamentos y técnicas cibernéticas*, Mérida: Junta de Extremadura.
- González, M. P.; Lorés, J. and Pascual, A. (2001), *Evaluación heurística*, Universidad de Lleida, available in <http://www.aipo.es/libro/pdf/15-evaluacion-heuristica.pdf> (Consulted on: 01/12/2012).
- González-Lucio, J. A.; Faba-Pérez, C.; Moya-Anegón, F. and Moscoso-Castro, P. (2009), "Evolution of the formal quality indicators of the Web spaces of University Libraries in Spain", in *Cybermetrics: International Journal of Scientometrics, Informetrics and Bibliometrics*, 13(1):1-11.
- Hassan Montero, Y. and Martín Fernández, F. J. (2003), "Guía de evaluación heurística de sitios Web", in *No sólo usabilidad*, 2:1-7, available in: <http://nosolousabilidad.com/articulos/heuristica.htm> (Consulted on: 12/10/2012).

- IFLA (International Federation of Library Associations and Institutions) (2002), *The IFLA/Unesco School Library Guidelines*, available in: <http://archive.ifla.org/VII/s11/pubs/sguide02-s.pdf> (Consulted on: 20/09/2012).
- Jiménez Fernández, C. (2012), "Aspectos informativos básicos en la web de la biblioteca escolar", in *Revista Didáctica, Innovación y Multimedia*, 24:1-10, available in: http://ddd.uab.cat/pub/dim/dim_a2012m12n24/dim_a2012m12n24a4.pdf (Consulted on: 2/01/2013).
- Jiménez Piano, M. (2001), "Evaluación de sedes Web", in *Revista Española de Documentación Científica*, 24(4):405-431.
- Junta de Extremadura, Dirección General de Política Educativa (2006) (ed.), "Análisis de la situación actual de las bibliotecas escolares extremeñas de los centros públicos", in *Pinakes*, 1:17-18.
- Kim, H. y Lee, H. (2007), "Digital-age trends and perspectives in Korean university archives", in *The Electronic Library*, 27(3):426-440.
- Large, J. A. y Beheshti, J. (2005), "Interface Design, Web Portals, and Children", en *Library Trends*, 54(2):318-342.
- Las bibliotecas escolares en España: análisis de resultados del estudio sobre su situación* (1997), Madrid: ANABAD, FESABID and Ministerio de Cultura.
- Marchesi, A. y Miret, I. (2005) (dir.), *Las Bibliotecas escolares en España: análisis y Recomendaciones*, Salamanca: FGSR.
- Marquès Graells, P. (1999), *Los espacios web multimedia: tipología, funciones, criterios de calidad*, available in: <http://peremarques.pangea.org/tipoweb.htm> (Última revisión: 03/08/10. Consulted on: 10/11/2012).
- (2001), *Los portales educativos: ficha para su catalogación y evaluación*, available in: <http://peremarques.pangea.org/evaport2.htm> (Última revisión 28/08/04. Consulted on: 12/11/2012).
- Más Bleda, A. and Chaín Navarro, C. (2009), "Los usuarios y las webs de los archivos históricos nacionales: el caso del Arquivo Nacional da Torre do Tombo (Portugal)", in *Investigación Bibliotecológica: archivonomía, bibliotecología e información*, 23(47):189-212.
- Ministerio de Educación, Comisión Técnica de Bibliotecas Escolares (2011), *Marco de referencia para las bibliotecas escolares*, Madrid: Ministerio de Educación, Subdirección General de Información y Publicaciones.
- Pinto, M.; Alonso Berrocal, J. L.; Cordon García, J. A.; Fernández Marcial, V.; García Figuerola, C.; García Marco, J.; Gómez Camarero, C. y Zazo Rodríguez, A. F. (2005), "Quality assessment of Spanish universities' web sites focused on the European Research Area", in *Scientometrics*, 65 (1):67-93.
- Pomet Correa, Alfonso (2006), "Panorama de las bibliotecas escolares en Extremadura: Educación Secundaria", in *Boletín del Observatorio del libro y la Lectura de Extremadura*, 6:1-4.
- Roba Stuart, O. (2003), "Archivos de datos en línea para ciencias so-

- ciales”, in *El Profesional de la Información*, 12 (5):400-410.
- Rodríguez Palchevich, D. R. (2010), *Blogs de bibliotecas escolares argentinas*, tesina de grado, Universidad Nacional de Mar del Plata, Argentina, available in: <http://eprints.rclis.org/15135/1/Tesina-Diana-versionfinal.pdf> (Consulted on: 26/11/2012).
- Sanz-Caballero, I. y Faba-Pérez, C. (2012), “Diseño de un modelo basado en criterios e indicadores de características para la evaluación de los sitios web de archivos”, in *Revista General de Información y Documentación*, 22:307-331.
- Tejero Aparicio, A. (2006), “Panorama de las bibliotecas escolares en Extremadura: Educación Infantil y Primaria”, in *Boletín del Observatorio del libro y la Lectura de Extremadura*, 5:1-4.
- Zhang, P. y Dran, G. M. von (2000), “Satisfiers and dissatisfiers: a two factor model for website design and evaluation”, in *Journal of the American Society for Information Science*, 51(14):1253-1268.

