Connecting puzzles' pieces to build an action plan for end user education

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Abstract. In the last few years end user education has become increasingly important in the daily work of biomedical librarians: new technologies, databases, and innovative systems for accessing information have made information retrieval more complicated and challenging for librarians and users alike. To promote an effective use of technologies and library resources in this new context, the Library of the Istituto Superiore di Sanità (ISS) decided to provide a diversified program of seminars covering different library services. The response of the library users was unexpected: we were surprised by the huge participation as we received an average of 50 requests per seminar. The study presented here had the objective of assessing user satisfaction with these seminars regarding contents, library facilities, expectations among other variables as well as probing for suggestions for improvements in order to improve the Library's activities. Data were collected during 2018 utilizing a self-administered user satisfaction survey questionnaire. Results show that the evaluation of the overall quality of the courses was 97% positive so these results certainly encourage us to continue on the path we have taken.

Keywords. user education, training courses, information literacy

1. Introduction

In recent years, enormous changes in web technologies have had a considerable effect on libraries and their end-user training programs. These changes have implied the need to teach users how to become more effective, efficient, and independent in their information seeking. Trying to respond to the new needs created by this revolution, the underlying logic of library user education has evolved from library instruction to information literacy and lifelong learning.

The Library of the Italian National Institute of Health (Istituto Superiore di Sanità, ISS) has supported the Institute's activities since 1934, the year of Institute's foundation. It is the flagship library for biomedical research in Italy and specialized in scientific documentation in the fields of biomedicine and

public health. The ISS library has always put great emphasis on the education of its users.

Its activities are mainly oriented towards internal users, who are researchers in all areas of biomedicine and public health with a great level of specialization.
Thanks to new technologies, and the consequent possibility of remote consultation of the library resources, users now have access to their material of interest directly from their workstation or even from home. This rise in digital collections has furthermore expanded the amount of available information exponentially and new technologies, databases, as well as innovative systems for accessing information have made the library more complicated for users (Norliya 2009).

As a matter of fact, end user education is becoming increasingly important in the daily tasks of biomedical librarians as new tools, databases, and innovative systems for accessing information have made information retrieval more complicated and challenging for librarians and users alike (Fallahay Loesch 2010). It is indisputable that Internet gives great opportunities to researchers by making available a wealth of information that was not previously accessible but ultimately places additional responsibility upon the librarians who are increasingly aware that, now more than ever, users need assistance with the retrieval of pertinent and meaningful information for their research needs.

As librarians, we have re-thought our professional role in order to develop and promote an effective use of tools and library resources through a structured set of seminars making, at the same time, the library a valuable place for meetings, knowledge acquisition and exchange of experiences.

As it is the library's responsibility to provide better services to its users, the ISS Library decided to plan a diversified program of seminars covering the different library services to promote an effective use of library resources and related technologies. A set of structured seminars is better than an invitation to occasional courses and is also one of the best methods to encourage the knowledge and use of new resources.

The current paper first presents the seminars developed by the ISS Library, starting from a previous experience of end user training. Next, the work reports on an evaluation study of these seminars by the user.

2. Aims

Since the early nineties, the ISS library has been organizing ECM (Continuing Education in Medicine) training courses in information retrieval addressed only to the staff of the National Health Service (doctors, veterinary doctors, biologists, chemists, administrative staff) welcomed by the participants themselves.

Over the time, both statistical surveys on the use of available tools carried out among the ISS internal staff and informal talks with the library's internal patrons, led the library staff to evaluate and take into account the specific needs expressed by internal library users.

In light of the need for our library to understand and satisfy the information and knowledge needs of our users, supporting at the same time ongoing learning activities, the ISS Library decided administer a user satisfaction questionnaire after each seminar.The analysis of the results of the questionnaire was conducted with two aims: identify the satisfaction level of the users regarding the service and, consequently, improve our activities.

3. The seminars

Taking into account that librarians need to be more aware of the development of user-friendly information systems, a careful analysis of the topics that seemed to be of most interest to the users of the library was carried out and a preliminary selection was made in order to enable the users to select the best information for their needs.

The seminars were scheduled for each semester and were communicated to our users well in advance in order to give them the possibility to better organize their attendance.

The first cycle of seminars covered different topics, from general to very specific, such as particular law and nursing databases, MESH (MEdical Subject Headings) and information retrieval techniques, and open access and scientific information retrieval. In the two semesters of 2018 the following training course were held:

- Specialist databases: Cinhal Complete and ProQuest Platform (two versions, for basic/advanced users)
- De Agostini databases of legal documentation
- Different information sources of a legal nature
- Using the ISS's online catalog of electronic journals
- Indexing a scientific publication: natural language or controlled vocabulary?
- Predatory journals, publishers, and conferences: let's avoid the traps
- The WHO (World Health Organization) and its documentary resources
- Bibliometric indicators and citation databases: practical use for researchers
- The rare book collection at the ISS Library
- How to find periodical articles of interest not available through the Library's subscriptions

4. Methods

At the end of each seminar session, a questionnaire (fig. 1) was distributed to the participants to test their satisfaction and highlight any critical issues.

The questionnaire was conceptually divided into three main sections: user's expectations regarding the course; logistical aspects (such as facilities, place, space, scheduling); suggestions and new proposals. More precisely, respondents were required to indicate to what degree their expectations were met regarding content, professional utility, duration and educational materials. In the second section they were asked to rate the usefulness of the library facilities and the appropriateness of the scheduling of the seminar. The last section of the questionnaire referred to suggestions and comments to improve the organization of the seminar as well as other topics of interest.

In the preparation of the questionnaire some considerations were made on the choice of the number and the type of response options.

Where it was easy to determine the value of the answers provided (questions number 2-3), it was chosen to enter the minimum number of possible answers to allow a quick and immediate choice for the compilers of the questionnaire, in order to encourage users to fill in the questionnaire. In fact, out of 430 participants, 347 (81%) completed the proposed questionnaire.

Besides, for question number 4 we wanted to know in depth the opinion of the participants to understand any changes to be made in order to improve the entire performance of the teachers involved. This explains the greater number of answer options entered for this question.

Anyway, the use of this questionnaire model was subsequently replaced in 2019 with one that provided numerical evaluation options in the responses. That further improved the comprehension and evaluations of the compilers.

LIBRARY SEMINARS

Title:
Date:

1. **The seminar matched your expectations for:**
    Contents   Professional utility
        Yes
        No
        Partly

2. **What do you think of the duration of the seminar?**
        Good   Inadequate   Excessive

3. **How do you evaluate the educational material provided?**
    Helpful   Not very useful

4. **How do you evaluate the appropriateness of the lesson content and the quality of the instructor's presentation?**
                        Content   Presentation
        Poor
        Average
        Good
        Excellent

5. **Please suggest a topic of the seminar that you would like to learn more about:**
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6. **How do you rate the organization and logistics?**
        Poor
        Average
        Good
        Excellent

7. **Do you think the seminar schedule reflects your needs?**
        Yes   No   Partly

8. **What are the aspects of the seminar that could be improved**
            Contents
            Educational material
            Duration
            Exercises (if provided)
            Other (specify):
            ----

9. **Please, indicate with a grade from 1 to 4 the overall quality of the course**
    (1 poor, 2 sufficient, 3 good, 4 excellent)   -----------------------------------

10. **Please, provide suggestions / comments to improve the organization of the seminar as well as to report any other topics of your interest**

Fig. 1: User satisfaction survey model, translated from Italian

Further informal interviews were carried out to qualitatively clarify specific issues brought out by the quantitative data of the questionnaire.

The data that will be discussed in the next Section were collected during 2018 utilizing this self-administered user satisfaction survey questionnaire formulated in order to identify the real satisfaction level of our users regarding the seminars and in order to improve our services to meet their needs.

5. Results and Discussion

This article reports the findings of an assessment questionnaire for a 2018 training courses experience for a total of 11 seminars. The total number of participants to the seminars was 430, with an average of 30/35 participants at a time. Results were analyzed in a perspective of self-evaluation of teaching effectiveness and self-improvement in a constant effort to meet user's needs. The questionnaires, anonymous and voluntary, distributed to the participants at the end of each seminar, were filled in by 347 people (81%)

The discussion of these data follows the division into sections mentioned above:
User's expectations

The user expectation related to the contents discussed in the seminars shows a very high percentage (94%) of satisfaction (Fig.2). This seems to underline the adequacy of the choices made with respect to the proposed topics and the respondents' needs.
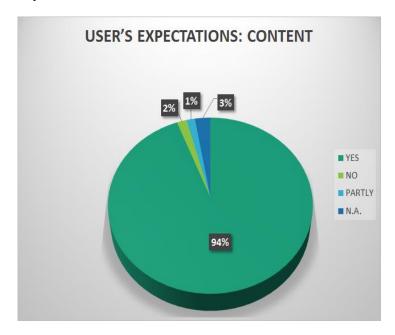
Fig. 2: User's expectations - Content

The aspect concerning the evaluation of the professional utility of the seminars, with respect to the activity carried out, was assessed positively by a smaller but still considerable 80% of respondents (Fig.3).

The user's feedback has been very valuable also in terms of the organization of the new cycle of seminars scheduled for 2019. Taking into account the 10% of users who thought that the seminars were only partly useful for their activity, the ISS Library decided to indicate in the email announcing every single seminar a brief text with useful information such as a summary of the content of the seminar and its specific audience.
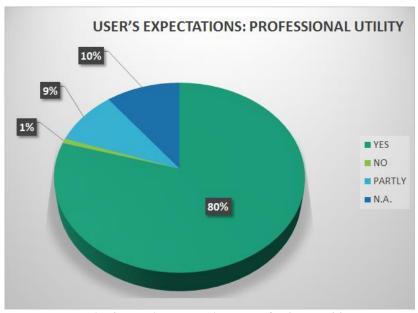

Fig. 3: User's expectations - Professional utility

Even if the vast majority of the survey respondents evaluated that the seminar duration was appropriate (Fig. 4), it was decided not to ignore the 2% stating that the time dedicated to specific seminars was inadequate. A further informal investigation brought into light the reason of the dissatisfaction: the need to go deeper into the topic, in particular the lack of practical examples, and for more opportunities to interact with the presenter.
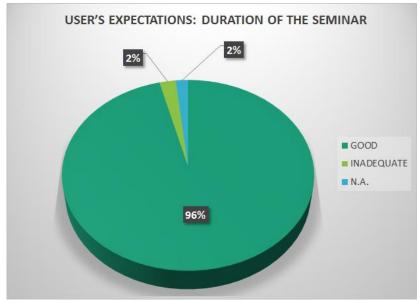
Fig. 4: User's expectations - Duration of the seminar

The high percentage of satisfaction (Fig. 5) with the material provided in the seminars is probably due to the fact that it was decided to circulate in advance by email the slides and any other material related to the course, allowing everyone to decide in advance whether print it or read it on their personal devices during the seminar.
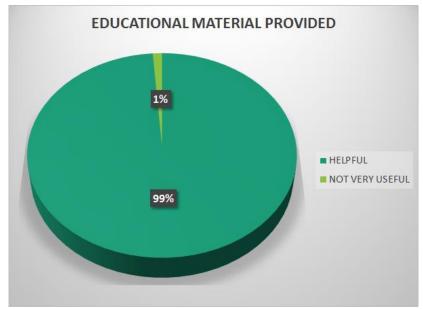
Fig. 5: Educational material provided

Logistical aspects

The second section of the questionnaire concerned the critical aspect of the logistics and the appropriateness of the scheduling of the seminars.

This section was motivated by the particular situation of the ISS library, as we are about to start renovation works in order to make the library spaces more comfortable and usable for our patrons.

In spite of this precarious situation, our users seemed equally satisfied as a good percentage (89%) of them rated the library environment "good" and "excellent" (Fig. 6).
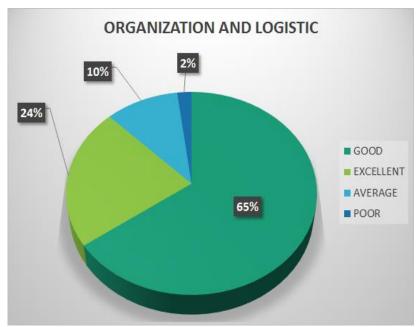
Fig. 6: Organization and logistics

In the questionnaire, we also posed a question regarding the seminars timetable as we were unsure that an after lunch meeting time was ideal for the participants. In general, the answers were positive but we are thinking of scheduling the seminars in different days and at different times to involve as more audience as possible.

Suggestions and new proposals
Question number eight of the survey, concerning the aspects of the seminars that could be improved, shows some interesting results (fig. 7): even though we sent in advance the slides and other material related to the course, one of the most frequent requests we received from our users was improvement of training materials.

This figure is followed in second place, not surprisingly, by the request of about 15% of respondents to increase the time devoted to practical training activities during every specific session. This in order to exercise more and improve their abilities in retrieving contents with the tools available so as to fulfill their need of acquiring skills for an effective independence in the digital environment.
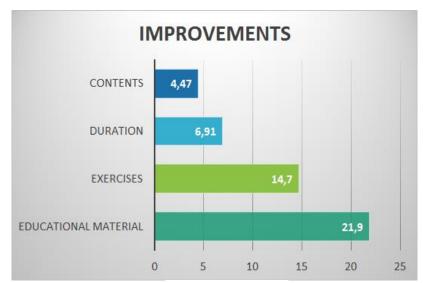
Fig. 7: Improvements

The feedback from the satisfaction survey questionnaires received from each seminar was also useful for the development of the subsequent courses (Mallett and Sedgwick-Barker 2017).

Moreover, the questionnaire feedback proved to be a helpful way to observe users' needs from the point of view of other topics of interest to them. Question number ten, referring to other topics of interest, has received several requests for dealing with issues that had not been anticipated. The requests were examined and some considered in the planning of a new cycle of seminars.

As a matter of fact another positive aspect of the development of a periodic cycle of seminars, with a six-month programming, was give more importance and visibility to the activities that take place at the library

6. Conclusions

This cycle of seminars represents a first step in the library commitment towards the education of its internal users.

Even though we were conscious of the increasing difficulties our patrons face for the exponential growth of information and digital technologies, the response of the library users was unexpected: we were surprised by the huge participation as we received an average of 50 requests per seminar.

Moreover, the evaluation of the overall quality of the courses was 97% positive (55% "excellent" and 42% "good"), so these results certainly encourage us to continue on the path we have taken.

Despite the highly positive reaction shown by users regarding the new activity, in the future it will be necessary to analyze, above all, the critical points highlighted by the feedback coming from the questionnaires that will be useful for planning a more appropriate organization and management of upcoming seminars.

As a matter of fact, the experience gained has already brought about some changes. For example, a first modification has been made on the 2019 model of the satisfaction questionnaire used: a simpler and more understandable graphic layout has been selected and a numerical scale has been adopted for the evaluation of the answers provided by the respondents.

For the future, we are also thinking of setting up a "starter pack" course on the Library services aimed to young researchers, post-doc, and students who can have the opportunity of a specific training path that makes them aware of how, where and when to use information search techniques.

We are also studying the possibility of establishing one to one "training on demand" courses, to be tailored on the specific user needs. Based on our experience, we recommend a "learning by doing" approach, rather than a passive talking, where librarian results as a facilitator and not only as a teacher (Powell 2001).

As Virginia M. Tiefel stated, predicting more than 20 years ago a future now reality, "without a commitment to teaching, librarians will not be successful with information literacy and that, as collection development wanes in importance and access waxes, the teaching library is the natural route to go" (Tiefel, 1995).

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