

Capacity building to boost information and communication skills inside an institute of research

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Abstract

To enhance its visibility, the Library of the Istituto Superiore di Sanità (ISS) along with the Scientific Communication Unit of the same institution delivered a set of informal online training sessions, or webinars, on their fields of expertise: information retrieval, publication, effective communication, and research evaluation, specifically addressed to internal users. The collaboration was extremely useful in terms of improved knowledge on skills available among the personnel of these two services. It increased trust in the competencies of internal staff and at the same time it contributed to develop awareness of the value of the services rendered. Skills to use available online resources for training were improved as well as ISS staff cohesion favouring the development of new collaborations.

Key words: libraries, medical; interdisciplinary communication; distance learning; training techniques.

Introduction

In recent years, the move from printed to online resources, and the ever-increasing volume of information available directly from the web, has created a situation in which a substantial proportion of library services are delivered online causing a progressive emptying of the libraries and a need for librarians to reconsider their role.

Especially in the health sciences, many librarians have started to recognize that they are losing visibility and that it is vital to re-examine their roles and to take into consideration novel approaches to remain relevant to the mission of their institutions (1). Obviously, different kinds of librarians must face different problems in increasing their visibility, but a clear common theme is the need to develop a proactive strategy to go outside the library (literally or virtually) and to create new connections with users and stakeholders. Often this means librarians need to go beyond their comfort zone and getting involved in activities outside their traditional role such as embedded librarianship (2), collaborations with other professionals, and teaching.

Starting from these considerations, the Library and the Scientific Communication Unit of the Istituto Superiore di Sanità (ISS, the National Institute of Health in Italy), which are two separate but complementary departments, decided, at the beginning of 2021, to work collaboratively to deliver a set of informal online training sessions, or webinars, on their fields of expertise: publication, information retrieval, effective communication, and research evaluation, specifically addressed to internal users. With the unexpected advent of the COVID-19 pandemic, teaching and learning have moved primarily online everywhere in the world, and the use of remote video conferencing has become commonplace affecting also the ISS Library and Scientific Communication Unit education programming, much of which relied on face-to-face activities.

The idea of a set of online training sessions was also based on the assessment that the COVID-19 pandemic has been a period of an extraordinary dissemination of scientific information across the Internet supported by a huge quantity of papers and pre-prints on that topic, sometimes containing incorrect and mis-

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leading data (3, 4) so it was important to share competences on retrieving and disseminating the correct information.

Building a collaborative learning environment and developing a culture of knowledge sharing in a workplace are complex processes that take time and require commitment: sharing is fundamental to improve skills and promote the development of new knowledge, increase the sense of community and belonging, and be beneficial for problem solving, critical thinking and other soft skills.

In this paper we present an experience of collaboration within the context of a research-based institution and describe the different roles, knowledge and skills acquired.

The training sessions

As the Organisation for Economic Co-operation and Development (OECD) states in its report “The potential of online learning for adults: Early lessons from the COVID-19 crisis”, during the pandemic individuals were being encouraged to use the time freed up by short-time work schemes to train online from home and acquire new skills deemed useful (5).

Motivated by this report, in 2021, the staff of the Library and the Scientific Communication Unit of the ISS started a collaboration to organize several informal online training sessions, or webinars, addressed to researchers and other employees of the ISS.

The primary objective of the training was to share specific competencies and expertise on editorial skills and the use of information and library resources to help the ISS staff to acquire both new abilities to improve writing and publishing scientific articles, technical reports, and other documents and to retrieve reliable information sources.

The course was also intended to enhance institutional cohesion by promoting communication between different branches of the Institute, to spread awareness of the capabilities of the two departments, and to contribute to the professional development of both trainers and trainees.

The online training sessions focussed on different topics selected according to what it was thought were the training needs and skills of target users. The main topics were effective communication, research evaluation, the advantages of Open Access publishing, specific and

detailed instructions on how to publish a scientific article, a technical report or other documents, and the ISS library electronic resources online catalogue.

The planning and preparation of the training sessions can be split up in the following steps:

- set the learning objectives;
- define the process of activities;
- design and share the methodology with trainers/secretarial staff;
- define the training program, teachers, and collaborators;
- develop a communication strategy;
- design, produce and share communication material, including graphics;
- inform and engage directors of ISS internal divisions (for a top-down approach);
- inform and engage ISS colleagues (for a bottom-up approach);
- design and distribute sample e-mails to be used in the organization;
- manage privacy policy;
- design, distribute, and collect participants’ application forms;
- select participants according to specific criteria outlined below;
- design, distribute, collect, and process participants’ questionnaires;
- process data from questionnaires and collect oral/written feedback (received also from chats) for evaluation.

As it is essential to choose a user-friendly webinar platform, after an initial check of what were the alternatives, it was decided to deliver the online training modules through the Office 365 Teams platform.

The training organization benefitted from a uniform professional graphic layout, granting common design, realized thanks to the professional skills of the Scientific Communication Unit. The same graphic line was applied to the poster advertising the training program (*Figure 1*), to the application form, the slide template, and the background of the online sessions.

The selection criteria were based on the applicants’ motivation and impact on work activities, avoiding trainees coming all from the same ISS offices.

In total, 14 webinars were realized, in two editions (April-June and November 2021) for the high number of attendance requests. The organization involved:

ISS per ISS: condividere competenze per facilitare la ricerca bibliografica e bibliometrica e per pubblicare efficacemente

Obiettivo: ottimizzare l'utilizzo delle risorse informative disponibili attraverso la Biblioteca ISS e condividere competenze editoriali per la pubblicazione di articoli scientifici, rapporti tecnici e altri documenti

Periodo: aprile-giugno 2021

Modalità: piattaforma Teams

Iscrizione: inviare modulo di adesione al contatto del webinar scelto

Partecipanti: massimo 15 per webinar per garantire efficacia e interazione

Tematiche

Ricerca delle informazioni: come utilizzare il catalogo delle risorse elettroniche della Biblioteca ISS e quali sono gli strumenti web per recuperare le versioni gratuite di articoli non accessibili dal catalogo.

Valutazione della ricerca: come valutare la ricerca conoscendo i parametri bibliometrici, attivare identificativi di autore (ORCID, ResearcherID, ScopusID), riconoscere le differenze tra le Web of Science e SCOPUS

Scelta della rivista e sottomissione di un articolo: come valutare i vantaggi della pubblicazione open access, scegliere la rivista sulla quale pubblicare e conoscere le regole per sottomettere un articolo scientifico.

Come impostare un documento editorialmente corretto: come pubblicare un Rapporto ISTISAN e un ISTISAN Congressi imparando ad applicare le regole editoriali di base.

Comunicazione efficace: come scegliere le parole giuste per garantire una comunicazione efficace attraverso elementi tecnici ed esercizi pratici.

Calendario

28 aprile ore 10-12
Come pubblicare un articolo scientifico: struttura, istruzioni agli autori, submission, peer-review
 A. Barbaro, M.C. Barbaro, F. Napolitani
 Adesioni a: P. Dionisio paco.dionisio@iss.it

19 maggio ore 10-11
Pubblicare in open access: come, dove e perché
 A. Barbaro, M. Zedda
 Adesioni a: A. Mecchia antonella.mecchia@iss.it

26 maggio ore 10-11
360 Link: il nuovo Catalogo online delle risorse elettroniche
 A. Barbaro, M. Zedda
 Adesioni a: A. Mecchia antonella.mecchia@iss.it

9 giugno ore 10-12
Consigli pratici per pubblicare un Rapporto ISTISAN
 S. Salinetti
 Adesioni a: P. Dionisio paco.dionisio@iss.it

10 giugno ore 10-12
Consigli pratici per pubblicare un ISTISAN Congressi
 P. Mochi, C. Gasparini
 Adesioni a: G. Morini giovanna.morini@iss.it

16 giugno ore 10-12
La valutazione della ricerca: conoscerla per farne una opportunità
 G. Ardita, D. Gentili, P. Pecci
 Adesioni a: P. Pecci paola.pecci@iss.it

24 giugno ore 10-12
Il potere delle parole
 A. Gasparini
 Adesioni a: P. Dionisio paco.dionisio@iss.it

Responsabile dell'iniziativa: Paola De Castro (Direttore COS-CON)

Fig. 1. The poster advertising the training program.

teachers from the Library and the Scientific Communication Unit (no. 11), organizational staff (no. 2), secretariat staff (no. 4), and the content coordinator for the initiative. Some people played more than one role (e.g., as teacher and organizational staff).

Each webinar lasted about 2 hours (28 hours of training in total) and included an average of 20 participants, plus a waiting list, selected according to the given criteria. As evidenced by the list below, the webinars were a representation of the different yet complementary skills of the people working in the Library and the Scientific Communication Unit.

The titles and objectives of the webinars are presented below:

- *How to write and publish a journal article: structure, instructions to authors, submission, peer review process*, which examined in detail the different steps necessary to successfully publish a research article in an international science journal;

- *Practical tips for publishing a report in the series Rapporti ISTISAN*, designed to help ISS authors to publish a report in the *Rapporti ISTISAN*, a series of grey literature edited by the ISS;
- *Practical tips for publishing an abstract book: ISTISAN Congressi*, aimed to explain how and why produce an Abstract book in the in-house edited series *ISTISAN Congressi* (related to events organized by the ISS);
- *The power of words, the most crucial elements to communicate effectively*, which objective was to present the main axioms of communication and help acquire competence on the role and power that the choice of words can have;
- *Open access publishing: how, where, and why*, which focused on the choice of the more suitable open access journal to publish avoiding, at the same time, predatory and vanity publishing;
- *360 Link: the new electronic resources online catalogue*, designed to describe the most important features of the new ISS library's electronic resources;
- *Research evaluation: understanding the game rules to gain the match*, which analysed the complex context of the bibliometric research evaluation, author identifiers (Web of Science ID, ScopusID and ORCID), and citational databases (Web of Science, Scopus).

After each webinar, participants were invited to fill in an online questionnaire, built on Office 365 Forms, to collect feedback on each training event.

The questionnaire was structured with 8 closed questions with a 5-point Likert scale to give the respondents a limited number of options to choose from. There were also 3 open-ended questions to give the respondents the opportunity to freely express their opinion about the webinar and to collect suggestions and problems as well.

Results

In total, 334 applications were received from 131 employees affiliated to 30 different organizational structures of the ISS (Scientific Departments or National Centres, Services, Administration offices). *Figure 2* shows in detail the participants' distribution by job profile.

71 trainees attended the webinars in the spring edition; 85 attended the autumn (webinar) edition (25 employees joined both editions). Overall, there were

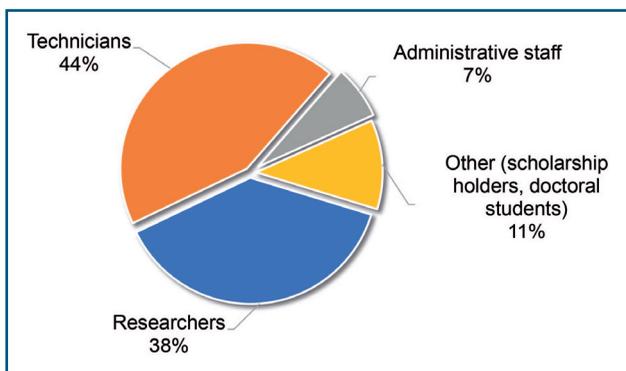


Fig. 2. Participants in the ISS webinars in 2021 by job profile.

226 participations (some attended one or two webinars, rarely three).

Most participants (91%) were women, in accordance with the higher percentage of women employed at the ISS. At the same time, the figure could also indicate a lower training need perceived by male colleagues in the webinar topics.

Researchers reached the 38% of the total number of trainees, but the largest percentage of applications came from technicians (44%). The remaining 18% is represented by administrative staff and scholarship holders, doctoral students, etc.

Most trainees (78.8%) regularly completed the questionnaire (178 questionnaires out of 226). Data show that the webinars were considered effective in terms of gaining knowledge and upskilling (*Figure 3*).

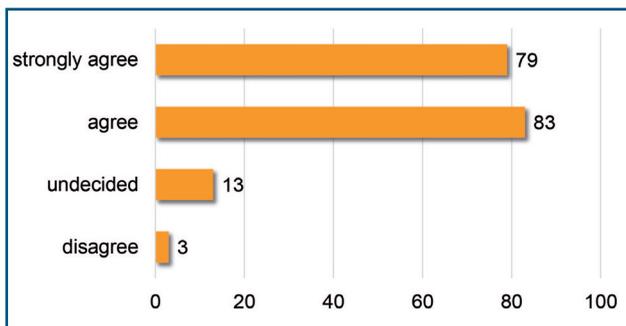


Fig. 3. Efficacy of training activity in improving skills in work performance: measure of satisfaction of the participants in the ISS webinars in 2021.

Participants demonstrated to be really interested in the topics, in their feedback questionnaire they asked for more training and face-to-face meeting to discuss critical issues.

The potential of Microsoft Teams as the chosen online learning platform was perceived by the total of participants (99.5%) as highly effective.

The same percentage (99.5%) of respondents evaluated the trainers competent, skilful, qualified, and their communication style was perceived as accurate, clear, effective, and exhaustive.

Most of the respondents considered the training activity effective to acquire and improve knowledge, skills, and attitudes to be applied in their work practice, and relevant to increase their productivity and performance (91%).

Discussion

The COVID-19 pandemic, even if it provided a powerful test of the potential of online learning, had also revealed its key limitations, including the need of adequate digital skills, computer equipment and good internet connection to undertake training online, the difficulty of delivering traditional work-based learning online, and the struggle of teachers with a limited training in online teaching methods (5).

This also affected the ISS Library and the Scientific Communication Unit staff involved in this kind of distance learning activities for the first time. It was decided to create as much interaction as possible and to give practical examples by means of additional material and lists of useful links. The slides used for the training were self-explanatory to be easily read even after the course, being attentive to the proper use of words to communicate effectively. Pictures, graphs, tables, and other diagrammatic representation were inserted in the slides to get participants much more interested in following the session (6). The contact information of the trainers was provided to the participants to offer continuity to the seminar and support over time.

Based on that experience and the feedback received, there are some issues that we think should be implemented: webinars duration did not always allowed to assimilate information beyond the basic concepts, interaction with participants should be enhanced, there was a need to assign more time for active learning, possibly with a better use of the online available resources, and remote teaching skills should also be improved (7, 8). Yet, the need of a second edition showed the interest in this activity and the necessity to keep up with the ever-changing information knowledge landscape.

Conclusion

The COVID-19 pandemic has increased the need to seek, use and produce quality health information. The webinars, in this context, were a great opportunity: their use for ISS staff training was extremely valuable during this period, offering the possibility to reach more people simultaneously, and to enhance the visibility of the Library and Scientific Communication Unit staff maintaining a close relationship with ISS personnel, even at a distance.

We should not be afraid of going beyond our comfort zone, acquiring different skills, or experimenting with new collaborations. On the Library and Scientific Communication Unit side, this training initiative was successful in terms of improved knowledge on skills available among the personnel of these two services. It increased trust in the competencies of internal staff and at the same time it contributed to develop awareness of the value of the services rendered. Skills to use ICT (Information and Communication Technologies) for training were improved as well as ISS staff cohesion favouring the development of new collaborations.

The leading concepts successfully guiding the organization of the training program were based on both “Look *outside* the box” and “Look *inside* the box”. This double approach allowed us to boost creativity, think differently and cope with the pandemic restrictions on one hand and to use existing resources and improve in-house skills of both trainers and trainees, on the other hand. The initiative carried out at the ISS during the pandemic and reported here might prove useful whenever there is a need to improve sharing of information, skills and positive attitudes among people working in the same workplace acquiring, at the same time, new skills thanks to the collaboration with people working in different areas and part of this experience could be used in discussing the libraries of the future.

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REFERENCES

1. Lawton A. The invisible Librarian. A librarian's guide to increasing visibility and impact. Chandos Publishing; 2016. 349 p.
2. Barbaro A, Amicarella SE, Ferrari P, Sorcini I, Zedda M. Embedded librarians: An innovative experience in health and wellness communication. *Health Info Libr J.* 2021;39(2):194-7. doi: 10.1111/hir.12410.
3. Frampton G, Woods L, Scott DA. Inconsistent and incomplete retraction of published research: A cross-sectional study on Covid-19 retractions and recommendations to mitigate risks for research, policy and practice. *PLoS one.* 2021;16(10):e0258935. doi: <https://doi.org/10.1371/journal.pone.0258935>
4. Barbaro A, Napolitani Cheyne F, Barbaro MC. The impact of COVID-19 on scientific publishing. *J Euro Ass Health Inf Libr.* 2020;16(3):37-43. doi: 10.32384/jeahil16407
5. Organisation for Economic Co-operation and Development. The potential of online learning for adults: Early lessons from the COVID-19 crisis. OECD Publishing; 24 July 2020. Available from: <https://www.oecd.org/coronavirus/policy-responses/the-potential-of-online-learning-for-adults-early-lessons-from-the-covid-19-crisis-ee040002/>
6. Fadlelmola FM, Panji S, Ahmed AE, Ghouila A, Akurugu WA, Domelevo Entfellner J-B, et al. Ten simple rules for organizing a webinar series. *PLoS Comput Biol.* 2019;15(4):e1006671. doi: <https://doi.org/10.1371/journal.pcbi.1006671>
7. Tanidir Y, Gokalp F, Akdogan N, Batur AF, Sekerci CA, Egriboyun S, Deger M, Sahin B, Akarken I, Aydin C, Altan M, Ozman O, Ucar M, Gudeloglu A, Ongun S, Akbal C, Esen A. How did the COVID-19 pandemic affect audience's attitudes in webinars? *Int J Clin Prac.* 2021;75(7):e14239. doi: <https://doi.org/10.1111/ijcp.14239>
8. Gegenfurtne A, Zitt A, Ebner C. Evaluating webinar-based training: a mixed methods study of trainee reactions toward digital web conferencing. *Int J Train Dev.* 2020;24:5-21. doi: <https://doi.org/10.1111/ijtd.12167>

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