

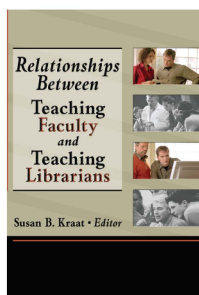
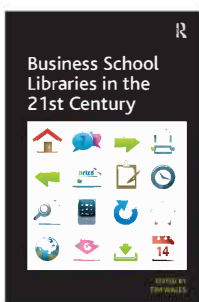
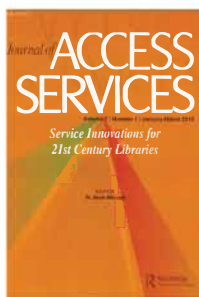
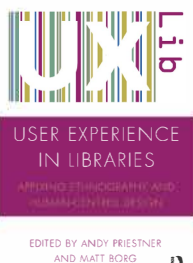
Global Librarianship

*Perspectives From Librarians in
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Jordanian Public Libraries in Relation to Achieving SDGs: Shoman Library in Action

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ABSTRACT

In 2015, the United Nations (UN) called for a better world through 17 Sustainable Development Goals (SDGs). Public libraries offer a wide range of services that can contribute to creating effective change in societies. Shoman library is one large public library in Jordan that is part of the Abdul Hamid Shoman Foundation. This article investigates how Abdul Hamid Shoman library's services, projects, and activities are related to achieving the UN SDGs. The benefit of this research paper lies in its novelty in Jordan. The article has practical implications for Shoman library (and other libraries), as it provides an insight on strategic planning framework to cover all relevant SDGs. The results showed that Shoman library has already contributed to achieving a large number of the SDGs causing a wide positive impact on the community. However, little is achieved toward achieving goal 16, and none for goal 2. Recommendations are proposed on how to embrace more goals in the future.

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Introduction

“In the context of the UN 2030 Agenda, the International Federation of Library Associations and Institutions (IFLA) believes that increasing access to information and knowledge across society, assisted by the availability of information and communications technologies (ICTs), supports sustainable development and improves people's lives” IFLA (2018). The UN 2030 agenda of 17 SDGs is an integrated framework of economic, environmental, and social development. Access to information through libraries improves outcomes across the SDGs. As IFLA (2018) explains, it shall promote universal literacy, understand information needs better, and preserve culture and heritage, and much more. Shoman library is one large public library in Jordan that is part of the Abdul Hamid Shoman Foundation, established by the Arab Bank in 1978 as a charitable initiative. The library was established in line with the foundation's vision to provide a wide range of various forms of resources to the public and researchers. The library also aims at promoting literacy and developing skills and educational

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capabilities, by providing a wide range of services to the community, in addition to providing a cultural space for all. The library comprises around 250000 titles including books, periodicals, and more. According to The Public Library of Abdul Hameed Shoman (2017), the number of subscribers reached 44349 by the end of 2017. There has been a great increase (114%) in the number of subscriptions from 2013 to 2017. The number of people borrowing books reached 18447. The main library is located in Western Amman, while there is another new branch located in Eastern Amman, within a public hospital premises. Shoman library is recognized for its projects that run locally and extend globally; it supports libraries in the region, and collaborate with others internationally. This paper explores where Shoman library stands in relation to achieving the SDGs. The various activities, projects, and services that Shoman library provides are linked to the SDGs, with some insights on how to proceed further.

Sustainable development goals (SDGs)

In 2015, the United Nations called for a better world through 17 SDGs (the 2030 Agenda for Sustainable Development). This universal call was initiated to end poverty, protect the planet, and guarantee peace for all people. The 17 goals (see Figure 1) are built on the success of the Millennium development Goals, with adding new areas such as climate change, innovation, and more. The goals are interconnected where tackling some goals will lead to the success of others. The UN Development Program (UNDP) is uniquely placed to help implement the goals through work in 170



Figure 1. The 17 sustainable development goals (SDGs) (UNDP 2019).

countries, but they cannot do it alone. Achieving the goals requires cooperation of governments, civil societies, and citizens. Libraries are part of the society and can have a leading role in achieving the goals.

Contributions of libraries to the SDGs – literature review

It is very important to recognize the priorities of the country and work on the SDGs accordingly. Libraries should adopt the goals that can be well managed. Through a diverse range of services and programs tailored to the needs of the community, libraries can contribute toward supporting the progress of the SDGs. IFLA states:

“Access to information is a cross-cutting issue that supports all of the SDGs. Library services contribute to improved outcomes across the SDGs by:

- Promoting universal literacy, including media and information literacy, and digital literacy skills
- Closing gaps in access to information and helping government, civil society and business to better understand local information needs
- Providing a network of delivery sites for government programs and services
- Advancing digital inclusion through access to ICT, and dedicated staff to help people develop new digital skills
- Serving as the heart of the research and academic community
- Preserving and providing access to the world’s culture and heritage” (IFLA 2018).

IFLA has collaborated with the UN to ensure that libraries in 150 countries are ready to implement the SDGs through their programs and services. IFLA (2018) demonstrated some libraries’ contributions around the world to achieving the SDGs, for instance, training librarians by Biblionet program in Romania allowed them to work with local government to help 100,000 farmers use new ICT services to apply for agricultural subsidies. Ljubljana City Library hosts employment information service. The National Library of Finland hosts Open Science Lab – open access to research data and publications. In the UK, libraries in Croydon, Derby, and other cities allow users to borrow energy monitors to identify electrical appliances that use a lot of energy, encouraging people to reduce energy consumption. The Ulaanbaatar Public Library (UPL) and the Mongolian National Federation of the Blind initiated a project of building two recording studios to create talking books for the blind. The Children’s Green Library in Singapore provides collections on environmental conservation and special educational programs to help children understand climate change. The National Library of Uganda initiative provided ICT training specifically designed for female farmers ensuring their access to crop prices, and other

facilitates in their own language. The biodiversity literature and research data available at the Biodiversity Heritage Library in the US are utilized to predict climate change, to identify new species and map population and ecosystem developments. This can feed into policies and decision-making related to conservation and resource management. In Sri Lanka, the government runs an e-library Nenasala Program to increase digital literacy and access to poor residents in rural areas, and finally, the creation of the first Beijing subway library delivers resources, making it a reading station for all.

IFLA (2017) issued a toolkit aimed at supporting advocacy for embracing libraries within formal national and regional development plans to contribute in achieving the UN 2030 agenda. In relation to that, Moldova, Georgia, and Ukraine have access to information and library commitments as part of their Open Government Partnership (OGP) National Action Plans. Librarians in these countries are involved in developing their country's plan by attending civil society meetings, highlighting the role of libraries and access to information in delivering OGP commitments.

As part of the Australian Library and Information Association (ALIA) response to SDGs, the Better Beginning family literacy program in Western Australia supports literacy at an early stage, as libraries have been collaborating with child health nurses and kindergarten teachers since 2004. The program seems to have a return of investment of about 5.64 dollars in social value for each dollar spent (ALIA 2018). Adult low-level literacy has an impact on economy and society; Kuczera, Field, and Windisch (2016) state that low-level literacy reduces productivity and employability, hence, causing damage to economic growth.

Various studies examined libraries' status toward achieving the SDGs. Hancks (2012) found that libraries in five rural communities in the US had a successful role in community economic development. Similarly, Bishop, Mehra, and Partee (2016) reported survey findings of activities carried out by rural public libraries in Tennessee, USA. Igbinovia (2016) examined the Nigerian libraries' response to achieving the goals. Several dissemination means were used to raise awareness amongst stakeholders about the goals, and how libraries can meet them. Jain and Jibril (2018) shared the public libraries' experience in Botswana/Malesia in an attempt to meet the SDGs. Mansour (2019) showed that although Egyptian rural public libraries struggle to achieve the SDGs in light of the economic, social, and political factors, they somehow show a positive response.

Shoman library activities in relation to SDGs

This section lists all SDGs, linked to Shoman library's activities and projects where applicable.

Goal 1: End poverty in all its forms everywhere

Libraries, by providing access to information and skills, help provide opportunities for people to improve their own lives and support informed decision-making by governments, communities and others to provide services and support that reduce poverty and improve the prosperity of people everywhere.

Access to information is one of the major services provided where subscription to many databases allows users to improve information literacy in many areas. One-day training courses are frequently organized and monthly workshops are held at the library as part of capacity building, resulting in enhanced individuals' skills and capabilities, to allow better employment opportunities to combat poverty. Examples of such training courses are "CV writing" and "Jobs' Interviews." These training courses and more are held every year in both the main library (in Western Amman) and in the other branch located in Eastern Amman. There is also a training course titled "Eradication of illiteracy" that runs for two months. It is worth mentioning that the library faces some economic and social challenges when conducting these workshops at the other branch, which makes the job more challenging.

The courses and workshops are also held at different governorates around Jordan as part of society development, some are conducted in partnership with other institutions such as Kerak Creativity Center, Aqaba Zone Authority, and Greater Irbid Municipality. The selection of workshops' topics however is flexible as they depend on users' needs, they vary in their topic and content every year. An example of a workshop held that fits this goal is titled "Creative Thinking." Other workshops are held but they support other goals as will be seen in goal 8.

On the other hand, the library also works on staff development, where staff are encouraged and funded to attend national and international events. For example, to learn about the SDGs, and how libraries can work toward achieving them, Shoman library sent some library staff to Qatar to attend related workshops. In addition to continuous support to library staff for attending conferences. Recent examples on conferences attended by some of Shoman library staff are the Arabic Union Catalog conference 2019 in Tunisia and IFLA conference 2019 in Greece. On the same track, the library works on their staff to develop their skills as part of capacity building, an example is Shoman library staff participation in the International Network of Emerging Library Innovators conference.

Similar to the Sri Lanka project in supporting residents in rural areas, Shoman library has collaborated with Haya Cultural Center in Amman to establish the Children's Mobile Library since 1998. The Ministry of Culture joined in 2007. The aim of this mobile library is to provide services and access to resources in the remote areas in Jordan. This indeed responds to IFLA's recommendation of collaborating with governments for informed decision-making.

Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

Libraries including specialist agricultural libraries and extension services provide access to research and data on crops, market information and farming methods that supports resilient, productive agriculture.

There are no projects directly related to agriculture in Shoman library, although the parent institution Abdul Hamid Shoman Foundation as a whole is always willing to fund projects in various fields. The library, however, provides access to various information that can provide a base for researchers in the field of agriculture.

Goal 3: Ensure healthy lives and promote well-being for all at all ages

Medical libraries, hospital libraries and other libraries are essential providers of access to medical research that supports improved public health outcomes. Public access to health information in all libraries helps people to be better informed about their own health and to stay healthy.

Shoman library provides access to health, environmental, and agricultural information. In addition to that, Shoman library staff collaborate with King Hussein Cancer Center staff to evaluate the library's information resources in the field that are out of date. As mentioned earlier, the other branch of Shoman library is located within a public hospital premises, allowing its resources to be harnessed for the medical staff.

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Libraries are at the heart of schools, universities and colleges in every country around the world. Libraries support literacy programs, provide a safe space for learning, and support researchers to reuse research and data to create new knowledge.

Providing access to information seems to fit best when implementing SDGs. Aside from that, libraries can provide media and information literacy programs for all ages and genders. At Shoman library, safe convenient community space is available for students, researchers, and all kinds of users to access information or hold meetings. Rumi Café is available as a cozy atmosphere for some refreshments. The library supports digital literacy by providing computers and high-quality internet connection throughout the establishment.

In relation to supporting literacy and lifelong learning, Shoman library is engaged in several activities and projects:

- *The Abdul Hameed Shoman public library reading program* – this program is held once a month; it includes reading events, and featuring some poets, writers and authors' works.

- *Book club hosting* – in an attempt to promote reading and encourage discussions and cultural interactivity, the library hosts the activities of the Jordanian reading clubs.
- *The Abdul Hameed Shoman public library awards* – “the most borrowed books award” is offered for library’s subscribers as a way of appreciation and encouragement.
- *Jordanian family library support project* – in collaboration with the Minister of Culture, the library has been funding the provision of important books at nominal prices in an attempt to promote the reading culture amongst people.
- *Audio books*: the library allows borrowing audio books – helping visually impaired people, hence, supporting information literacy for all.
- *The street (Al-Raseef) library*: to encourage reading and provide books for all, this initiative was launched just outside the library on the footpath. The sidewalk library comprises a collection of books updated every day for the use of adults and children.
- *Book signing*: held around 15 times a year, to support Jordanian authors and introduce them to a wider base of audience.

Shoman library supports students studying abroad, by providing the space and the online platform needed to study and attend exams by distance, if requested by their university abroad. This example serves this goal and goal 9 indeed.

Finally, the library has paid 600 subscriptions to ABJAD application, which consists of electronic books, to be distributed over 600 people in need later this year, to promote literacy and encourage reading. These can be accessed from any tablet, or even via the tablets that the library provides for lending within the library premises (see goal 9).

To achieve equity amongst Shoman library users a plan serving disabled patrons was established. The plan was prepared based on the input from disability representatives, along with supporting organizations helping with the evaluation process. As a result, the library offers the following environmental and service facilities for their disabled patrons as part of providing equal opportunities for all:

- Parking close to the library entrance
- Clear and easy to read signposting
- Unobstructed and illuminated access paths to the entrance, with smooth and non-slippery surface (ramp)
- Sufficient space in front of the door to allow a wheelchair to turn around, with a wide door to allow a wheelchair to enter, and an automatic door opener reachable by a person in a wheelchair
- Chairs with sturdy armrests

- Visible and audible fire alarm
- Toilet for disabled persons, equipped with washbasin and mirror at the appropriate height, reachable alarm button, handles and reachable flushing button, and wide door and enough space for the wheelchair to turn around
- Designated computer workstations and tables adapted to patrons in wheelchairs
- Adaptive keyboards for users with visual impairments
- Designated computers equipped with screen reading programs, magnifier, and synthetic speech – using Optical character recognition (OCR)
- Braille printer and some Braille books
- Training courses for library staff on how to assist disabled patrons.

Goal 5: Achieve gender equality and empower all women and girls

Libraries support gender equality by providing safe meeting spaces, programs for women and girls on rights and health, and ICT and literacy programs support women to build their entrepreneurial skills.

Shoman library embraces a wide collection of resources that include women-related topics. The library also provides safe free convenient space for all people equally regardless of gender or any other discrimination factor. One program that supports this goal is the “ladies lounge” aimed at empowering women intellectually. This book club started in Dubai as part of Mohammed Bin Rashid Al Maktoum Knowledge Foundation programs, and Shoman library is a partner. This activity promotes reading for women, and allows them to discuss various books by meeting with the author, regardless of different backgrounds and orientations. Finally, in recognition of women’s roles, Shoman library honors staff on various occasions such as Women’s Day and Mother’s Day.

Goal 6: Ensure availability and sustainable management of water and sanitation for all

And

Goal 7: Ensure access to affordable, reliable, sustainable, and modern energy for all

Libraries provide public access to information on water, energy usage and sanitation. Many public and community libraries around the world are the only place where people can get reliable access to light and electricity to read, study and apply for a job.

Shoman library has a wide range of resources that cover water and energy-use information locally and around the globe. Many people seek public libraries to get reliable and free access to light and electricity to read/study. Shoman library provides a convenient place for students and readers, warm

in winter and air-conditioned in summer. The library also provides clean drinking water free of charge for use of library users. It is also worth mentioning that the library stopped using water bottles, using filtered water instead in support of green environment.

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Public access to ICT and training at libraries enables people to apply for jobs. Skilled library staff can help people with online applications, writing support materials and finding the right job.

Libraries can contribute to achieving this goal by providing the means and skills to apply for jobs. Statistics state that 4.1 million adults in the European Union used computers from public libraries to apply for jobs (IFLA 2018). Related training to develop an individual's skills can also support this goal. Shoman library organizes training courses and workshops continuously. Examples of training courses that support capacity building and combat poverty were mentioned earlier in Goal 1, other examples of workshops held at the library are "Time Management," "Debate," and "Anger Management." These vary each year depending on users' needs. Abdul Hamid foundation as a whole does a lot of work related to innovation and entrepreneurship (meetings with businesses, funds, awards, etc.), which as mentioned before, limits the role of the library.

Goal 9: Build resilient infrastructure, promote sustainable industrialization, and foster innovation

Libraries are at the heart of research and academic life. They provide access to high speed Internet, research infrastructure and skilled professionals. In many countries, public and educational libraries are the major or only providers of public internet access at low or no cost, a critical means of increasing connectivity.

High-speed internet connection is provided, enabling quick and easy access to research publications free of charge. According to the interview with library staff, Shoman library supports students studying abroad, by providing the space and the online platform to study and attend exams on distance, if requested by their university abroad. A great initiative supporting this goal is the current creation of a fully equipped training room, dedicated as a makerspace for innovation. The room is currently under construction and will be available for use in 2020. Examples of training and activities to be implemented are robotics, electronic circuits, coding and more. In addition to that, the library holds awareness sessions three times a year in related topics such as how to use 3D printing, Internet of Things, and Artificial Intelligence.

Keeping track with technologies, the library allows lending tablets within library premises to read electronic books within the ABJAD application. Part of resources on this application requires membership while the other part is

free of charge. The library has paid 600 subscriptions, to be distributed over 600 people in need later this year, to promote literacy and encourage reading.

Goal 10: Reduce inequality within and among countries

Equitable access to information, freedom of expression, freedom of association and assembly, and privacy are central to an individual's independence. Libraries help to reduce inequality by providing safe, civic spaces open to all located in urban and rural areas across the world.

Audio books are available for lending. In addition, as mentioned in support of goal 4, the library has a Braille printer and some Braille books available for the blind. The library also installed adaptive keyboards for users with visual impairments, along with designated computers equipped with screen reading programs, magnifier, and synthetic speech using Optical Character Recognition (OCR).

Concerning urban and rural areas, Shoman library plays a major role in supporting the mobile libraries affiliated to the Ministry of Culture, Abdul Hamid Shoman Foundation, and Haya Cultural Center. The role Shoman library plays include providing financial support, giveaway books, and provide books for lending. The library also supports refugees by training library staff in the refugee's camps in Jordan. It is worth mentioning that the library gives away 80 books per year on average to public school libraries around the governorates in Jordan, especially in remote areas. Finally, Shoman library provides training to staff working in libraries in prisons; examples of training courses given are classification, indexing, and lending services.

Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable

Libraries have an essential role in safeguarding and preserving invaluable documentary heritage, in any form, for future generations. Culture strengthens local communities and supports inclusive and sustainable development of cities.

A similar initiative to the Beijing subway but on a smaller scale is the street (Al-Raseef) library—at both Shoman library branches. As mentioned in goal 4, updating the collection of books and making them available just outside the library on the footpath, encourages reading and provides books for all. [Figure 2](#) is a picture of the street (Al-Raseef) library at the Eastern Amman branch.

The expanded thesaurus support project is an example of language and culture preservation. Shoman library collaborated with Dubai Culture and Arts Authority and Juma Al Majid Center for Culture and Heritage in Dubai to develop this thesaurus.

Goals 12 to 15:

Goal 12: Ensure sustainable consumption and production patterns

Goal 13: Take urgent action to combat climate change and its impacts



Figure 2. The street (Al-Raseef) library at the Eastern Amman Shoman library branch (Abdul Hamid Shoman Facebook page 2019).

Goal 14: Conserve and sustainably use the oceans, seas, and marine resources for sustainable development

Goal 15: Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation, and halt biodiversity loss

Libraries are sustainable institutions; they share resources in the community and internationally and ensure everyone has access to information. All libraries play a significant role in providing access to data, research and knowledge that supports informed research and public access to information about climate change, and a key role in the preservation of indigenous knowledge – which includes local decision-making about fundamental aspects of life including hunting, fishing, land use, and water management.

Shoman library building's design allows natural light to come in. There are many plants inside the library and it is indeed smoking free. The library supports the environment by the tendency toward electronic resources rather than print, adopting paperless workflow, stop the use of water bottles and using filtered water instead, and finally recycling of unwanted material. As for the “Knowledge path” library for children, the summer and winter camps adopt different themes, one of which relates to the environment. The story-telling sessions also refer to environmental conservation and cover topics related to green environment (see Figure 3). Figure 4, however, refers to



Figure 3. Storytelling session with the green environment theme (Abdul Hamid Shoman Facebook page 2019).

a one-month activity program titled “from oceans to desserts”; aimed at introducing children to nature and different lifestyles.

Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

To realize access to information fully, everyone needs both access and skills to use information effectively ... Libraries have the skills and resources to help governments, institutions and individuals communicate, organize, structure and use information effectively for development.

Shoman library has a role in general policymaking for libraries in Jordan. It is involved in the decision-making process at the Jordan Library Association, and it is a member of the Jordanian Union Catalog. Other than that, the library is not directly related to the government when it comes to setting up a national plan.

Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

Libraries provide a global network of community-based institutions ready to support national development plans locally and nationally, and a resource for improved decision-making.



درب المعرفة Knowledge Path

مؤسسة عبد الحميد شومان
ABDUL HAMEED SHOMAN FOUNDATION
البنك العربي - ARAB BANK

من المحيطات إلى الصحاري

درب المعرفة - فرع الأشرفيه

الأحد	الاثنين	الثلاثاء	الأربعاء	الخميس
4:30	صندوق الفرجة	عالم من الاكتشافات	عالم من الاكتشافات	صندوق الفرجة

السبت	الأثنين	الثلاثاء	الخميس
1:30	المكتشف الصغير	رحلتي	من البحار الى الصحراء
4:30	المكتشف الصغير	رحلتي	من البحار الى الصحراء

السبت	الأحد	الاثنين	الثلاثاء	الأربعاء
4:30	محطات علمية	الرخالة	محطات علمية	الرخالة

كافة الفعاليات مجانية ولا تحتاج الى التسجيل المسبق.
تتراوح مدة النشاط ما بين 45 دقيقة الى 60 دقيقة.

shomanfdn www.shoman.org

Figure 4. “From oceans to desserts” activity program held by the “Knowledge path” library for children at Shoman library (Abdul Hamid Shoman Facebook page 2019).

Shoman library connects with other libraries and individuals in the annual seminar titled “the library as an engine of change,” where participants from the US, Europe, and Asia are invited to discuss the best practices and experiences of other successful libraries in the world, opening opportunities for development and embracing change. Shoman library also connects with other libraries locally and internationally, to implement supporting projects, such as

- *Library support project – Local* – The Youth Library Support Project was launched in 1998 across Jordan’s different governorates. The aim of the project was to enhance librarians’ competencies. The foundation cooperated with various parties (government, educational and civil society institutions) to achieve the objective.

- *Library support project – Palestine* – 36 libraries in Palestine have been covered in this project since 1998. The Abdul Hameed Shoman foundation covers expenses such as books' acquisitions and librarians' training.
- *Mobile library support project – Local* – in collaboration with Haya Cultural Center in Amman in 1998, and with the Ministry of Culture joining later in 2007, the library has been involved in the Children's Mobile Library, aiming at providing services and access to resources in the remote areas in Jordan.
- *The expanded thesaurus support project* – a great initiative to develop a comprehensive Arabic thesaurus. Followed by the development of the Arabic trilingual expanded thesaurus (Arabic-English-French) in 1993, in collaboration with Dubai Culture and Arts Authority and Juma Al Majid Center for Culture and Heritage in Dubai.
- *Jordanian family library support project* – this project was also mentioned in Goal 4 to promote education for all. It is mentioned again in support of this goal to highlight another example of partnership. In collaboration with the ministry of Culture, the library has been funding the provision of important books at nominal prices in an attempt to promote the reading culture amongst people.

The table in the appendix summarizes the findings of this paper, which displays Shoman library's initiatives instigated toward achieving the SDGs 2030. [Table 1](#) demonstrates the recommendations suggested to embrace more SDGs at Shoman library

Conclusion

It is fair to say that Shoman library has been engaged in many activities and projects supporting some of the SDGs before they were born in the first place. As mentioned earlier in this paper, Shoman library is part of the Abdul Hamid Shoman Foundation. This subordination in hierarchy limits the library's contribution to achieving many other SDGs since the greater contribution is credited to the foundation. The Foundation as a whole supports and funds many projects that can be linked to other SDGs such as goal number 2, in the field of agriculture.

As a result, Shoman library contributes to almost every SDG, except goal number 2 (*End hunger*). The library's work is very limited in relation to achieving goal number 16 (*Access to justice for all*). As can be seen in the Appendix, goal numbers 4, 9, 10 and 17 win ground for how active the library is toward achieving them. It could be because they best relate to the Jordanian experience, hence, have the strongest contribution and focus. It can also be noted that some of the activities/projects are repetitive as they can support more than one goal at a time; an example of such repetitive

Table 1. Recommendations to embrace more SDGs at Shoman library.

SDGs	Recommendations
Goal 1: End poverty Goal 2: End hunger	Collaborating with scholars in education <ul style="list-style-type: none"> • Collaborating with scholars in agriculture, and curate access to research results • Provide support to farmers whether with resources or training session or use of certain products • Hold cooking and nutrition classes
Goal 3: Good health	<ul style="list-style-type: none"> • Collaborate with King Hussein Cancer Center for holding awareness sessions (about topics such as cancer awareness specially for women, and family protection/planning) • Hold cooking and nutrition classes
Goal 5: Gender equality	More projects and activities can be thought of to support women, such as customized courses for women (on topics like motherhood, cancer awareness, empowering women in the market, etc.). In addition to providing support to specific categories of women (refugees and prisoners)
Goal 8: sustainable economic growth	Library staff can help people with online applications. They can also collaborate with businesses to better understand local needs, the companies can reach people through the library displaying what they have, and provide advice on entrepreneurship and employment skills
Goal 11: Inclusive safe cities	Can contribute to digitization of cultural material to provide a wider base of audience
Goal 16: Access to justice for all	<ul style="list-style-type: none"> • Create an online library that offers free access to documents on ethics and related disciplines. • Inspired by Moldova, Georgia, and Ukraine experience; librarians can become involved in developing the country's plan by attending civil society meetings, highlighting the role of libraries and access to information in delivering Open Government Partnership commitments

activities or projects is the development of the expanded thesaurus. This can support goal 11 in that it helps protect that culture and preserves the Arabic language, but it can also serve goal 17 as it supports partnership with local and other international parties for sustainable development. The street library (Al-Raseef) also supports two goals, goal 4 as it encourages reading and provides lifelong learning opportunities for all, and goal 11 since it promotes civil reading and provides a station for all.

It is predicted that libraries will have an increasing role in the development process gaining more visibility. Librarians are now having greater collaboration with professionals in different fields allowing them to get involved in providing solutions to various issues. Based on IFLA's (2018) recommendation, it is important that libraries raise awareness about the SDGs, what they mean, and how libraries fulfill them. It is recommended that Shoman library develop a platform on its website where their responses to the SDGs can be accessed and updated, along with FAQs appropriately tied to the goals.

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References

- Abdul Hamid Shoman Facebook page. 2019. From oceans to dessert program. Accessed August 28, 2019. https://www.facebook.com/pg/ShomanFDN/photos/?ref=page_internal.
- Australian Library and Information Association (ALIA). 2018. Australian libraries supporting the sustainable development goals. ALIA, Canberra ACT. Accessed August 18, 2019. https://www.alia.org.au/sites/default/files/Sustainable%20Development%20Goals%20report_screen.pdf.
- Bishop, B. W., B. Mehra, and R. P. Partee. 2016. The role of rural public libraries in small business development. *Public Library Quarterly* 35 (1):37–48. doi:10.1080/01616846.2016.1163971.
- Hancks, J. W. 2012. Rural public libraries' role in community economic development. *Public Library Quarterly* 31 (3):220–36. doi:10.1080/01616846.2012.707108.
- IFLA. 2017. Toolkit: Libraries, development and the United Nations 2030 agenda. Accessed January 22, 2020. <https://www.ifla.org/files/assets/hq/topics/libraries-development/documents/libraries-un-2030-agenda-toolkit-2017.pdf>.
- IFLA. 2018. Access and opportunity for all. How libraries contribute to the United Nations 2030 Agenda. Accessed May 13, 2019. <https://www.ifla.org/files/assets/hq/topics/libraries-development/documents/access-and-opportunity-for-all.pdf>.
- Igbinoia, M. 2016. Libraries as vehicle to sustainable developmental goals (SDGs): Nigerian's current status and outlook. *Library Hi Tech News* 33 (5):16–17. doi:10.1108/LHTN-03-2016-0010.
- Jain, P., and L. Jibril. 2018. Achieving sustainable development through libraries: Some preliminary observations from Botswana public libraries. In *Satellite meeting: Africa section libraries as centers of community engagements for development*. Kuala Lumpur, Malaysia. 22–23 August.
- Kuczera, M., S. Field, and H. Windisch. 2016. Building skills for all: A review of England. Policy insights from the survey of adult skills. Accessed August 19, 2018. <https://www.oecd.org/unitedkingdom/building-skills-for-all-review-of-england.pdf>.
- Mansour, E. 2019. Libraries as agents for development: The potential role of Egyptian rural public libraries towards the attainment of sustainable development goals based on the UN 2030 Agenda. *Journal of Librarianship and Information Science*. doi:10.1177/0961000619872064.
- The Public Library of Abdul Hameed Shoman. 2017. *Library in numbers – 2017 general printed report*.
- United Nations Development Program. 2019. Sustainable development goals. Accessed May 12, 2019. <https://www.undp.org/content/undp/en/home/sustainable-development-goals.html>.

Appendix

Summary of Shoman library projects, services, and activities toward achieving the SDGs.

Shoman Library Activities	Matching SDGs
Access to information	Related to all goals, as the information provided by the library is not restricted to certain topics, instead, it supports all kinds of knowledge. Information resources can raise awareness and help people gain information about various fields, and also raise literacy level
Training courses and workshops	Goal 1: End poverty
Staff development	Goal 1: End poverty
Collaboration with Haya Cultural Center in Amman to establish the Children's Mobile Library since 1998. The Ministry of Culture joined in 2007. This supports IFLA's recommendation of collaboration with the government by supporting informed decision making	Goal 1: End poverty
N/A	Goal 2: End hunger
Collaboration with King Hussein Cancer Center staff to evaluate the library's information resources in the field that are out of date	Goal 3: Good health
The other branch of Shoman library is located within a public hospital premises, allowing its resources to be harnessed for the medical staff	Goal 3: Good health
Safe convenient community space	Goal 4: Quality education
Rumi Café	Goal 4: Quality education
Providing computers and high quality internet connection	Goal 4: Quality education
The Abdul Hameed Shoman public library reading program	Goal 4: Quality education
Book club hosting	Goal 4: Quality education
The Abdul Hameed Shoman public library awards	Goal 4: Quality education
Jordanian family library support project	Goal 4: Quality education
Audio books	Goal 4: Quality education
The street (Al-Raseef) library	Goal 4: Quality education
Book signing, held around 15 times a year	Goal 4: Quality education
Providing space and platform support for student studying abroad	Goal 4: Quality education
Give away of 600 subscriptions to ABJAD application, of electronic books to people in need	Goal 4: Quality education
Setting a plan for disabled patrons including suitable parking, toilet, entry space, designated computer workstations and tables adapted to patrons in wheelchairs, adaptive keyboards for visual impairments, designated computers equipped with screen reading programs, magnifier, and synthetic speech (OCR), providing Braille printer and some Braille books, and finally, training courses for library staff on how to assist disabled patrons	Goal 4: Quality education
Safe free convenient space for all people equally regardless of gender or any other discrimination factor	Goal 5: Gender equality

(Continued)

(Continued).

Shoman Library Activities	Matching SDGs
"Ladies lounge" aimed at empowering women intellectually	Goal 5: Gender equality
Honoring staff in various occasions such as Women's Day and Mother's Day	Goal 5: Gender equality
Reliable and free access to light and electricity to read/study (warm in winter and air-conditioned in summer)	Goal 6 & 7: Availability of water and energy
Clean filtered drinking water free of charge for use of library users-replacing water bottles in support of green environment	Goal 6 & 7: Availability of water and energy
Access to ICTs	Goal 8: Sustainable economic growth
Workshops and training sessions to develop skills	Goal 8: Sustainable economic growth
Provides high-speed internet connection enabling access to research publications free of charge	Goal 9: Build resilient infrastructure
Supports students studying abroad, by providing the space and the online platform to study and attend exams on distance	Goal 9: Build resilient infrastructure
Fully equipped training room, dedicated as a makerspace for innovation, will available for use in 2020. Examples of training and activities to be implemented there are robotics, electronic circuits, coding and more	Goal 9: Build resilient infrastructure
Awareness sessions three times a year in related topics such as how to use 3D printing, Internet of Things and Artificial Intelligence	Goal 9: Build resilient infrastructure
Lending tablets within library premises to read electronic books within ABJAD application	Goal 9: Build resilient infrastructure
Audio books are allowed to be borrowed	Goal 10: Reduce inequality
Availability of Braille printer and some Braille books	Goal 10: Reduce inequality
Adaptive devices for disabled patron (mentioned up in goal 4)	Goal 10: Reduce inequality
Supporting the mobile libraries affiliated to the Ministry of Culture, Abdul Hamid Shoman Foundation and Haya Cultural Center. The role Shoman library plays include providing financial support, giveaway books, and provide books for lending	Goal 10: Reduce inequality
Support for refugees by training library staff in the refugee's camps in Jordan	Goal 10: Reduce inequality
Give away 80 books per year on average to public school libraries around the governorates in Jordan, especially in remote areas	Goal 10: Reduce inequality
Providing training to staff working in libraries in prisons, examples of training courses given are classification, indexing and lending services	Goal 10: Reduce inequality
The street (Al-Raseef) library. Books available just outside the library on the footpath, encourages reading and provides books for all	Goal 11: Inclusive safe cities
The expanded thesaurus support project	Goal 11: Inclusive safe cities
Nicely designed building allowing allows natural light to come in	Goals 12 to 15: Sustainable consumption and production, combat climate change, conserve use of oceans, protect eco system
Plants inside the library	Goals 12 to 15
Smoking free environment	Goals 12 to 15

(Continued)

(Continued).

Shoman Library Activities	Matching SDGs
Moving toward electronic resources rather than print	Goals 12 to 15
Adopting paperless workflow	Goals 12 to 15
Stop the use of water bottles and using filtered water instead	Goals 12 to 15
Recycling of unwanted material	Goals 12 to 15
The summer and winter camps at the “Knowledge path” library for children, adopt different themes, one of which relates to the environment	Goals 12 to 15
The storytelling sessions also refer to environmental conservation and covers topics related to green environment	Goals 12 to 15
Involved in the general policymaking for libraries in Jordan	Goal 16: Access to justice for all
Involved in the decision making process at the Jordan Library Association	Goal 16: Access to justice for all
A member of the Jordanian Union Catalog	Goal 16: Access to justice for all
“The library as an engine of change” annual seminar to discuss the best practices and experiences of other successful libraries in the world	Goal 17: Revitalize the global partnership for sustainable development
Library support project – to enhance local librarians’ competencies	Goal 17: Revitalize the global partnership for sustainable development
Library support project – covering expenses such as books’ acquisitions and librarians’ training in 36 libraries in Palestine	Goal 17: Revitalize the global partnership for sustainable development
The Children’s Mobile Library, aiming at providing services and access to resources in the remote areas in Jordan	Goal 17: Revitalize the global partnership for sustainable development
The expanded thesaurus support project	Goal 17: Revitalize the global partnership for sustainable development
Jordanian family library support project – in collaboration with the Ministry of Culture, the library has been funding the provision of important books at nominal prices	Goal 17: Revitalize the global partnership for sustainable development

12 UX and a small academic library

Margaret Westbury

This is not a story of how a UX mindset brought radical change to my library, but how over a few months it was a quiet yet persistent voice of empathy with my users, which resulted in keeping some old policies and starting some new ones that made my library a much friendlier place. Again, we are not talking radical change, but proof that a UX mindset, coupled with ethnographic methods, can generally sharpen the discussion about – and provide solid justification for – putting people first in your library.

Background

I run a small college library at the University of Cambridge. College libraries – 31 in total – play an important role in the ecosystem of libraries across the University. The college library is often the first library that new students visit and their subsequent ‘home’ library for the duration of their degree. Cambridge college libraries offer interdisciplinary collections that cater to the reading lists of taught courses and tend to have excellent spaces for studying. Most offer basic induction and searching classes, and as such are quite important for acclimating students to the culture of doing research at the university level.

The students at Cambridge tend to be high academic achievers, and perhaps because of this – for better or worse – I and the administration of my college tend to carry around certain assumptions about our students, some of which are so commonplace they become remarkably ingrained. One that I often hear is that ‘students these days come to university with multiple mobile computing devices’ such as laptops, tablets, mobile phones and so forth. Many do, but do all? Realistically, probably not. Yet it is so compelling, and it so feeds our ideas – or fantasies – of living in a technologically advanced world, that we rarely unpack it. I am just as much to blame as others. I regularly like to talk about how wired and technologically savvy my users are. The big question is, what are the implications if we start to design library services underpinned by assumptions like these?

This is where a UX mindset becomes very important, because it helps cut through these comfortable assumptions and stereotypes to reveal the complicated lives, experiences and desires of individual real people. For example, when important people at my college recently asked if we really needed a room in the



Figure 12.1 The Wolfson College computer room

Source: Margaret Westbury.

library with 15 big desktop computers because ‘students these days’ all come to university with multiple mobile computing devices, my first thought was, ‘That room really *is* anachronistic – let’s do away with it and replace it with something whizzy and future-proofed.’ You see, the computer room arguably is a bit odd (see Figure 12.1).

It is a meeting room with various old tables for the computers, bad lighting and flooring, wires spilling out the back of the computers and monitors – not exactly a showpiece of modern library space. But thankfully – and in part because of the UX mindset I had recently started adopting – I slowed down and said that it might be interesting if we took the time to *ask why* students used that particular computer room. Because use it they do: it almost always has people in it and is very often over half full.

Asking why

So, I very quickly threw together a print survey and left it round the computer room for the period of a week; during this time, I also informally spoke with students working in the computer room. The survey and interview questions asked: ‘What are you doing in the computer room today?’ ‘Why did you choose to work here?’ ‘If you could change anything about the room what would it be?’ Between the 30 survey responses I received, and the 20 people I chatted with, it was a good rate of return, certainly enough to see some trends. The results were very interesting and, to many people at my college, including myself, quite surprising and illuminating.

It turns out that some common reasons students worked in the computer room were as follows:

- They needed to be out of their rooms, working in a space with other people.
- The monitors in the computer room were bigger and more comfortable to look at than their laptops.
- The computers have software already loaded (such as SPSS – a statistical package) which they cannot afford themselves.
- The computers have direct access to big printers (no need to configure your laptop for wireless printing).
- Their laptop had crashed and they could not afford a new one at the moment.

Interestingly, many of their reasons were shaped in opposition to – or at least in relation to – the existence of mobile technologies. And there *clearly* were compelling reasons to continue to provide access to big, old-school computers. The survey was so interesting to me and the administration of my college that I believe it *saved* the computer room. Without the evidence – the voices of the students themselves – it is likely that the computer room would have been repurposed to something perhaps less valued by the college community.

The mini-interviews in themselves were intriguing, but I felt they were the tip of the iceberg in terms of what could be learned. My sense was that despite the fact students used the computer room for different, though somewhat related reasons, the interesting underlying differences about *why* they chose that spot couldn't be illuminated through a simple survey and set of short interviews.

Cognitive mapping

At the end of the short interviews, I asked if the students would be interested in doing a longer 10-minute follow-up interview with me, and about a third said 'Yes'. I felt strongly that there was likely more to be said about their use of the computer room than my simple survey could derive. I had always been intrigued by the method of cognitive mapping as a quick, efficient way of describing students' 'learning landscapes' (i.e. all the places where they did their academic work and why) and wanted to know what combination of factors contributed to making such decisions. My recent reading about UX and digital literacies, and everything that I had ever studied about anthropology, led me to think that the answers were going to be interestingly and deliciously complicated – and all different.

I was not disappointed. I used a structured 6-minute exercise in which I asked students to draw a map of all the places where they did their academic work, switching pen colour every two minutes, starting with the red pen, so as to easily be able to see the most important places first (the assumption being that the first thing students draw would be the most important to them). I also followed up the exercise with a short interview where the students labelled the map and discussed the various points on it. The maps were beautiful and illuminating and clearly

showed that even if students were using the same space, their reasons for doing so, how they felt about the space and how they made it uniquely *their* place was based on a combination of many factors including discipline, degree, nature of work undertaken, maturity, age, preferences, availability of electrical outlets, proximity to amenities such as water and toilets, proximity to friends and/or other people, availability of comfortable seating and/or natural light, noise level and – very intriguingly to me – memories and/or associations with a space.

The college common room

To tease out just one example from these maps, let us focus on a popular common room in my college which looks like a nice, welcoming living room (see Figure 12.2).

Who wouldn't want to work there? However, students tend to feel passionately one way or another about the worthiness of the space. In fact, it is far more politically fraught than you might think. Figure 12.3 shows two maps, both of which have indicated that this room is a place where they often do work (the room is marked 'KSJ' or 'Karen Spärk Jones Room' on the maps).

The first student loves this room because she can sit comfortably with her laptop near a window, drink coffee and be around other people. The second student finds the room quite stressful: there are tensions for him about whether he can talk in the room or not (technically you *may*, but in practice it is often so quiet that one feels uncomfortable doing so). He also feels stressed by the coffee machine, because it is not clear how it works and you have to purchase coffee for it elsewhere in college. Another student I spoke with will not work in there *at all* because she

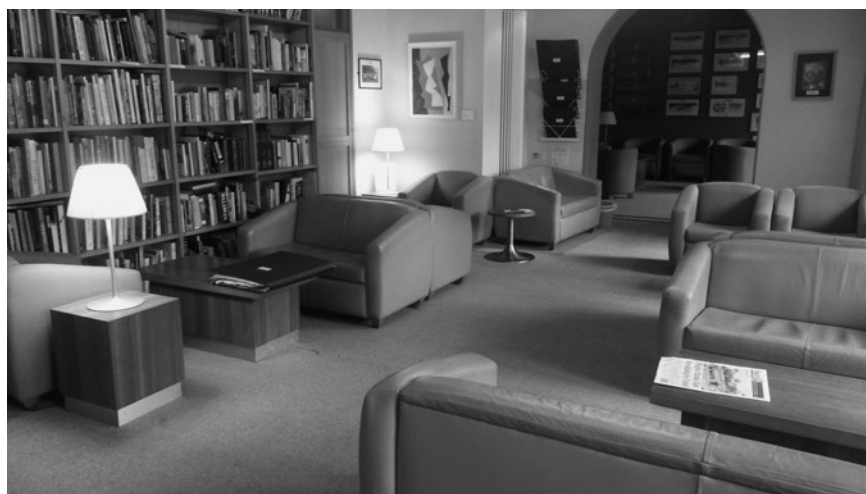


Figure 12.2 The Karen Spärk Jones Room

Source: Margaret Westbury.

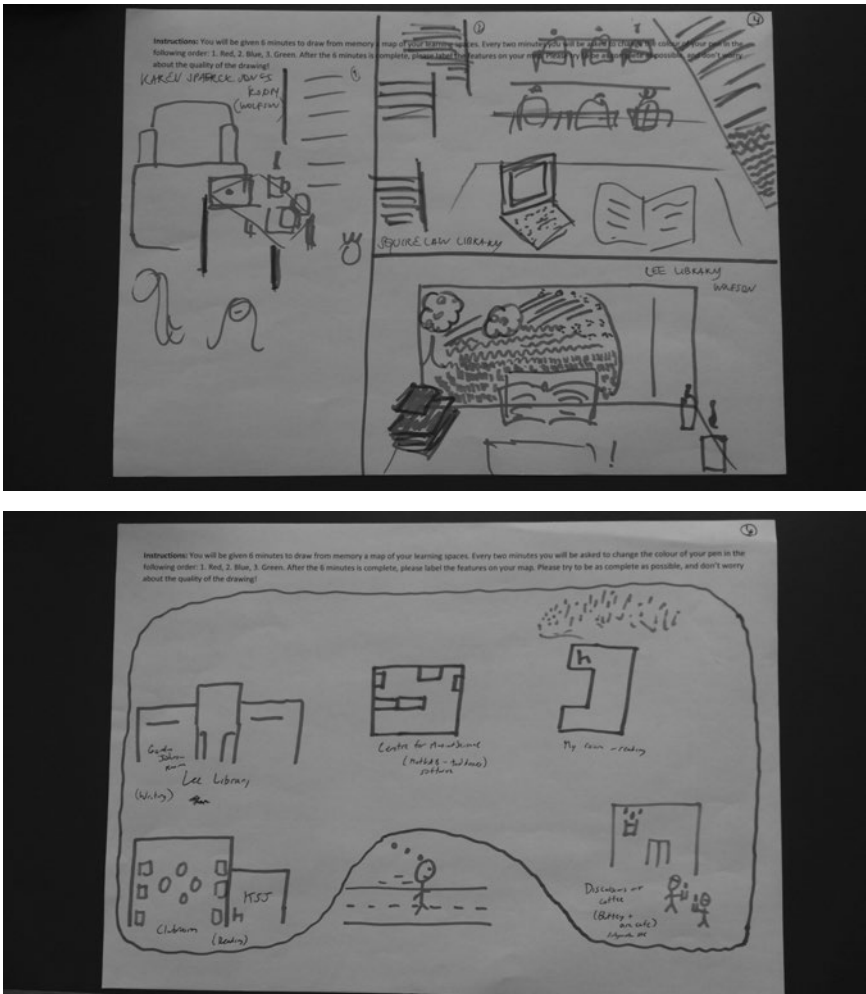


Figure 12.3 Two student cognitive maps depicting their ‘learning landscapes’

Source: Margaret Westbury.

associates the space with her interview day at the college when it was used as a waiting room, and yet another student loves the place because a few years ago he used to socialise often there with friends. Two further students I interviewed both find the furniture in the room incredibly uncomfortable: tables too low, backs of sofas too hard and so forth.

Without taking the time to talk to students and really probe why and for what reasons they made a choice about workspaces, none of the problems, tensions and politics of this room would have been discerned. Indeed, until then, I had always

showcased this room as an example of the sort of space that we needed more of around college.

In just 10 of these mapping surveys, the amount of data that I got was so rich it was stunning. These were interviews with students who were all relatively heavy users of the library's computer room, and yet what they were doing in there and what they subsequently did elsewhere – where and why – were very different and complicated.

Quickwins

So, how did this research lead to library policy changes? Directly stemming from this research, I changed the policy in my library to allow food and drinks. It met with some raised eyebrows from the administration of my college, but my interviews with students showed undeniably that they valued comfort in their study spaces – that they would actively choose one space over another because of its food and drink amenities.

The other policy I changed was the loan-and-renewal policy. I dramatically increased how many books students could borrow at one time as well as the number of times that books could be renewed. After listening to students discuss in the interviews how they juggled short loan periods and dealt with punitive emails about returning books, the old circulation policies seemed stingy. Students still *do* need to return their books of course, but I am now just a little less concerned if they want to keep them for extended periods.

Several months later, with the change of policies in place, my library has not become a mess of spilled food and drink, nor have we been overrun with vermin eating leftover crumbs. And books continue to be returned to the library regularly. With very minimal impact to the daily routine of the library, I gained a huge amount of goodwill throughout my college as heading a department that really cares about students' needs.

The UX mindset

As I do my daily rounds in the library and observe students working, it is easy to fall back on assumptions about how they work and what their needs are. I like to note how students creatively use the study spaces, as I tend to be relaxed about them leaving their belongings overnight on desks. Figure 12.4 shows three typical ways that students use the study spaces.

Students have colonised these spaces, making them mini-offices and storage places, and it is quite easy to label the usage with any number of simplistic stereotypes (like *colonisation*, actually). But it is important for me as a librarian to realise that this usage is actually quite complicated and hardly neutral: it is a combination of needs-meeting, performance for self and other students, and negotiation with limitations (perceived or real) of the space. Each student makes the space his or her place in different ways, for highly personal reasons. As I interact with students and design library services, I must keep this complexity in mind (i.e. have the UX



Figure 12.4 Three examples of study space use in Wolfson College Library
Source: Margaret Westbury.

mindset), for otherwise I am likely to wind up creating policies that are not flexible enough to meet a wide variety of their needs.

In the end, the small-scale studies I did illuminated a complicated set of behaviours and will forever change how I think about the students who use my library. With no money and very little time, I successfully used some ethnographic techniques to sharpen the discussion about students' technology, resource use and study-space needs at my college. Such techniques revealed a host of previously unconsidered issues and heightened awareness of many aspects of the library service I run that could and should be changed.

And, as an added benefit, without even realising I was doing it, I got people in my college excited about UX. I sneaked the approach and methods into my normal responsibilities and very easily proved their value. That these small victories can bring about rather nice improvements in the experience of users means that they are definitely worth trying.

The bottom line is that most librarians are not their end users, and therefore our assumptions about our users' desires and goals, what tasks they would like to achieve and whether their needs are met by using our services will often be incorrect. If our mission is to help our users be as productive as possible then we need to fully understand what drives and motivates them, and UX methods are truly excellent for that.



Removing the invisibility cloak: Using space design to influence patron behavior and increase service desk usage

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ABSTRACT

In small branch libraries, patrons seeking assistance from library staff outside of the dedicated single-service desk often results in large staffing inefficiencies. This paper presents a case study in which the authors applied behavioral psychology models to a branch library's space arrangement to identify possible factors influencing patron service point choices. A subsequent full space rearrangement was instituted which utilized human behavior research, service desk design principles, and low-cost methods to create a space that reduced barriers and influenced patrons back to the main service desk. The paper reports on the 11-month study that followed and the impact the rearrangement had on patron behavior. Results indicate that simple rearrangement of existing furniture and equipment into new configurations has direct influence on service desk usage and can encourage new patron behaviors. Space and human behavior are inherently connected and library managers should establish goals for how they envision their spaces to be used and arrange them in ways that encourage wanted behaviors.



KEYWORDS

Academic library;
circulation; floor plans;
human behavior; reference;
service desk; space design

Introduction

Patrons visit libraries for a multitude of reasons and make conscious decisions regarding how they use library spaces, resources, and services. Library space designs can often influence these behaviors subconsciously while simultaneously, positively or negatively, impacting a patron's feelings and perceptions of the library.

The service desk is one major spatial element which can greatly impact a patron's perception. Patrons want and expect a clearly defined focal point where they can seek assistance (Bartle, 1999). The ability to easily identify, access, and interact with staff at the service desk in a positive manner is important for encouraging its use. Low desk interaction statistics may indicate spatial issues, which should be investigated and addressed.

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A library's space design should also be reassessed when data indicates patrons are seeking assistance from library staff away from the dedicated service desk. This type of patron behavior suggests the spatial design of the service desk may be causing negative patron perceptions, and the resulting patron behavior can cause staffing inefficiencies. This is especially true in small academic branch libraries where resources are limited and such inefficiencies can result in a large impact on the daily operations and management of the library.

So how do library managers, especially academic branch managers, address service desk and space design issues when financial resources are minimal and full-scale redesign/renovations are out of the question? Can the simple rearrangement of space and furniture really influence patron traffic patterns and choices in small spaces in order to rebalance inefficiencies and perceptions? To address these research questions, an 11-month space study was undertaken at the University of Arkansas' Physics Library branch.

Literature review

To understand the research presented in this article, it is important to review the literature from two perspectives: service desk design and human behavior.

Service desk design

Patrons come to academic branch libraries for many reasons, but research shows that patrons expect a clearly defined focus point in the form of a service desk regardless of their reason for visiting (Bartle, 1999). Library and Information Science (LIS) research of the service desk is abundant regarding size, arrangement, and models of service, but regardless of the name or arrangement the need for an easily identifiable place to seek assistance has remained the same for library patrons. Service desk discussions in the literature are often framed within a medium-to-large size library's overall space design. Research has also begun to explore the library as a place through the application of human behavior research in order to examine how design elements influence patron behaviors within their various spaces as well as how perception of access services personnel can affect approachability and use (Aabo & Audunson, 2012; Baker et al., 2018; Bonnet & McAlexander, 2012, 2013; Cha & Kim, 2015; Cortes-Villalba, Gil-Leiva, & Artacho-Ramirez, 2017; Houston, 2015; Kim, 2016; Mandel, 2016; Maxymuk, 2010; O'Kelly, Scott-Webber, Garrison, & Meyer, 2017; Waxman, Clemons, Banning, & McKelfresh, 2007). Research is lacking,

however, an analysis of how library space design impacts small academic branch libraries which have limited space, resources, and staff coupled with the inability for large-scale changes. This paper attempts to fill this gap in the literature by focusing on the intersection of space design and assistance-seeking behavior.

Larason and Robinson (1984) asserted that before patrons can seek the assistance they must first be aware of its existence. The service desk area is often key to establishing this awareness. To assist library managers with the designing and planning of their service desk areas, Crooks (1983) established three key framing questions they should ask themselves:

1. What are the traffic patterns in the area?
2. What tasks are being performed at the desk?
3. What are the physical characteristics?

Many researchers have agreed that the physical service desk should be located in a highly visible location; be easily accessible; designed to encourage both short and long interactions; and be flexible in order to address future needs (Bartle, 1999; Becket & Smith, 1986; Crooks, 1983; Humphries, 1993; Larason & Robinson, 1984; Pierson, 1985). When planning desk services there has not been a more divisive discussion in LIS literature than the debate of whether separate circulation and reference desks should exist or if they should be combined into a single-service point. Barbara Ford (Ford, 1986) provided one of the earliest arguments for a consolidated approach as she challenged the efficiency and effectiveness of two desks. Many LIS researchers, who viewed Ford as an advocate for the removal of a reference desk in favor of centralized, single-service point, would echo her call (Campbell, 2007; Lewis, 1995; O'Neill & Guilfoyle, 2015). This research suggested that by moving to new service and staffing models through the use of a single-service desk and the "referral" or "consultation" model of reference, staff resources and expertise are optimized (Arndt, 2010; Miles, 2013; Oud & Genzinger, 2016; Sider, 2016; Venner & Keshmiripour, 2016).

Arndt (2010) noted by no longer having a separate desk staffed by librarians to provide walk-up reference assistance, libraries were able to increase meaningful reference encounters with librarians, including increasing the number of consultation appointments. Oud and Genzinger (2016) also saw both improved services and quality while emphasizing librarians now had more free time to engage in other duties, primarily outreach to faculty. Still, transitioning to a single-service point impacts both staffing requirements and training. Studies on the staffing of single-service points have

concluded that most assistance provided could be handled by trained student assistants and paraprofessional staff, allowing librarians to handle more complex reference interactions (Arndt, 2010; Dinkins & Ryan, 2010; Ryan, 2008; Schulte, 2011). Venner and Keshmiripour (2016) assessed that by consolidating desks and services while participating in the reference referral model of service, as the Physics Library branch does, allowed management to (1) use staff resources effectively, (2) modernize services, (3) expand cross-training, and (4) develop a more engaged and active learning environment for staff and student assistants.

Much like with the debate of consolidation of services, LIS researchers have long debated what constitutes the “perfect” service desk with the most debated element being desk height versus counter height (Macdonald, 1986; Morgan, 1980; Pierson, 1977). Researchers ultimately concluded a combined approach served patron and staff needs best (Heikkila-Furrey, Kearns, & Littrell, 2007; Warnement, 2003). While it is useful to understanding where the literature has focused to date, counter height was not a factor in the Physics Library’s space redesign due to the use of a desk height service point throughout the study.

Patron behavior and space design

Proper space planning can maximize staff and service efficiencies. It can also influence patron behaviors, helping to ensure services and staff are being used by patrons in the intended ways. The discussion of human behavior in relation to library space design and service desk usage in LIS research is limited. Larason and Robinson’s (1984) approachability model was one of the first to propose a link between service desk design and patron behavior. This model, which was influenced by human engineer McCormick’s (1970) principles of arrangement, asserted that the probability of a patron approaching the service desk for assistance was based on awareness of the availability and a patron’s calculation of need weighed against the psychological and physical “costs” of approaching the desk. Four key areas impact a patron’s likelihood of approach (1) communication and promotion of service, (2) floor plan layout, (3) positioning, and (4) personal space. Follow-up LIS research on a patron’s choice to seek assistance based on perceived cost (conscious or subconscious) has been sparse. Van Beynen, Pettijohn, and Carrel (2010) examined this topic through the application of pedestrian choice behavior research at the University of South Florida’s Poynter Memorial Library to understand patron movements throughout their library and increase engagement with its offerings, including the service desk.

Human behavior

Behavior setting theory and the role of economy of movement in pedestrian choice are two areas of human behavior research that were applied by the researchers in their case study.

Roger Barker introduced the concept of behavior setting theory in his 1968 book, *Ecological Psychology*, which provided a “multidimensional model of behavior that includes consideration of place, time, social organization, actions and goals” (Barker, 2002). Behavior settings, because they combine both physical and social elements of the environment into one identifiable unit, are considered to be extremely influential on human behavior (Scott, 2005). Behavior setting research has many interdisciplinary applications and is often used to assess how spaces and the objects situated within them influence human behaviors.

While behavior setting theory explains how environments and their elements can cue behaviors, the economy of movement application to pedestrian choice analyzes the costs and benefits of actions. Researchers of pedestrian choice study the interaction between pedestrian behavior and the environment. Moore (1953) was the first to introduce the economy of movement concept into pedestrian choice research after analyzing groups of people crossing the street and determining the most frequently selected path often required the least amount of effort. However, it was the follow up singular research of Stephen Bitgood (Bitgood, 2006) and his joint research with Stephany Dukes (Bitgood & Dukes, 2006) on the economy of movement and its relation to the general value principle and pedestrian choice that is the most applicable to our study. Both studies assert that humans, consciously and subconsciously, evaluate movement choices based on perceived costs and that the perceived benefits must outweigh these costs for an individual to select a certain path and/or destination. Their findings were later reconfirmed during a study to investigate whether group size influenced pedestrian choice (Jazwinski & Walcheski, 2011). As a result, the economy of movement proves to be a “powerful empirical principle in understanding how pedestrians move through their environment” (Bitgood & Dukes, 2006, p. 402).

The implication, when applied to library space settings, is that as patrons interact with library spaces, they are assessing the way libraries have utilized interior design mechanisms to plan their spaces and are calculating the cost of navigating these arrangements when seeking help. Spaces and desks should be designed to encourage positive behavioral outcomes (patrons seeking help) by reducing perceived costs (pathway barriers) in order to increase benefits (ease of access to services, desks, and equipment). Van Beynen, Pettijohn, and Carrel (2010) were the first to apply pedestrian choice and Bitgood’s (2006) general value principle research on movement

within a LIS space design context. Their research indicated, while paying close attention to natural pathways, (1) that libraries need to determine what resources and services should be located immediate to their entrances to reduce their “costs” and encourage increased interactions and (2) libraries should increase “benefits” by redesigning their non-desirable spaces into desirable locations.

The review of literature discussed in this section is key to understanding how a library’s physical space design can impact services and influence patron behavior. By recognizing the interconnectedness of space design and human behavior, librarians can affect how their spaces and services are perceived and used in order to encourage intended behaviors and increased efficiencies (van Beynen et al., 2010).

Institutional context

Classified as a Carnegie Mellon R1, highest research activity institution, the University of Arkansas is made up of nine different colleges that serve undergraduate and graduate students, and faculty. The University inhabits a single Fayetteville, AR, campus with a population of over 27,000 students and faculty. The University Libraries consists of David W. Mullins Library, the Fine Arts Library, the Chemistry and Biochemistry Library, Special Collections, the University of Arkansas Law Library, and the Physics Library. The David W. Mullins Library is the main campus library and houses all central library operations as well as Special Collections. As of 2017, the University Libraries’ collection consists of over 2 million monographs; 92,000 serials, government documents; and 497,000 audiovisual items which are housed across the various library branches and an off-site high-density annex facility. University Libraries employs 35 librarians, 72 staff members, 9 graduate assistants, and a number of student workers.

The Physics Library is a departmental branch library housed within the Physics Building on the south side of campus. The Physics Library branch consists of 1 faculty librarian, 1 full-time staff member, 1 part-time staff member, 1 graduate assistant, and multiple student workers. The total square footage of the library is 2033 sq. ft. which includes the librarian’s office (109 sq. ft.); a quiet room for study and stack holdings (447 sq. ft.); and a main room where computer terminals, collaboration tables, and the majority of print collections are housed (1477 sq. ft.). The local collection is made up over 11,000 monographs, 1600 print serials, and course reserve items.

The Physics Library operates Monday through Friday for a total 62 hours a week. Operating hours are reduced during class breaks, intersessions, and summer semesters. For the 5-year period 2013–2017, the Physics Library

saw approximately 63,000 annual visitors making it the second most visited library on campus behind the main branch, Mullins Library. Over this time period, the library recorded the majority of foot traffic during the months of April, September, and October and the least in June and July. During the fall and spring semesters of the same five-year period, the average number of visitors per day was 303. On an average day in the Physics Library, the busiest time occurs between 9 am and 6 pm when there are between 15 and 30 visitors an hour. Due to its popularity, ensuring services are parallel to Mullins Library and are critical. However, while Mullins Library employs separate reference and circulation desks, the Physics Library utilizes a single-service desk staffed by students, the library's graduate assistant, and an evening part-time staff member who handle both reference and circulation transactions. Staff refer complex reference transactions to the librarian and library supervisor when needed, who each have separate desks that are also easily accessible by patrons.

The Physics Library has had to be innovative over the years to balance its collections, services, and space needs without any change to its existing structural layout. At the end of fall 2016, semester statistics showed that the majority of patron interactions were occurring at the librarian and the library supervisor's desks rather than the main service desk. This unintended traffic flow pattern prevented both the librarian and library supervisor from working on daily duties, research, projects, and providing in-depth reference assistance. Instead, they were devoting most of their time to handling circulation and ready-reference/directional transactions for patrons. Because the bulk of patron assistance was falling to the library supervisor and librarian, these employees could not fully devote their time to tasks related to the management and operations of the branch library. The end result was having service desk staff who no longer felt engaged or invested in their role of helping the library function, as the majority of patrons did not interact directly with the desk staff.

Turning theory into practice

For this study, a combination of Larason and Robinson's (1984) approachability model and Bitgood and Dukes' (2006) economy of movement principles was applied along with a physical rearrangement of the space. The goal of modifying patron behavior and encouraging use of a particular service desk location was achieved, with patron interaction data showing that service desk staff are fielding a greater percentage of patron questions post reconfiguration.

The approachability model states that the likelihood a service desk will be approached involves patrons establishing their need and then calculating

whether or not it warrants approaching the service desk for assistance (Larason & Robinson, 1984). These calculations take into account awareness of the desk and services provided, their psychological costs (cost to pride, self, or other mental attributes), and the physical costs (time and effort related to getting to the service point and potentially waiting). To better understand the important role of physical cost within the equation, economy of movement, ways which people minimize time and effort of their behavior, can be applied. Decreasing patrons' costs (least amount of time and effort applied) increases their perceived benefits/experience of their destination (Bitgood, 2006; Bitgood & Dukes, 2006; van Beynen et al., 2010).

The Physics Library's main space is 1477 sq. ft. As a result of the small space, awareness and approachability of service desks and staff for assistance were determined not to be impacted by the library's space arrangement. The key issue centered on patrons seeking assistance from staff at the library supervisor desk or librarian desk rather than at the designated main service desk. The service desk was assessed for the study, and it was found that it already followed key suggestions from the approachability model. It was centrally placed in a high visibility, high traffic area in front of the single entry and exit point. Despite this, patrons sought both circulation and reference assistance from the librarian and library supervisor's desks over the service desk 63% of the time in FY 2016 and 40.4% in FY 2017 prior to the space rearrangement in August 2017. While proximity to a point is important, it also not enough to attract users. Costs, packaging (relationship to other points of need), and awareness all play a role in a service desk being used by patrons (Larason & Robinson, 1984).

Prior to the library's rearrangement, all major destinations (computer terminals, printers, copiers, scanners) and course reserves were located in proximity to the library supervisor's and librarian's workspaces. Bitgood and Dukes' (2006) economy of movement and pedestrian choice research suggest that the preference for seeking assistance from these service points over the service desk can be attributed, at least in part, to perceived higher "costs" and lower "benefits" for approaching the service desk.

In an early attempt to recommunicate the purpose of the service desk, course reserve materials were moved from the librarian's office into a cabinet behind the service desk in fall 2016. No other library aspects were altered during this process, and the percentage of circulation transactions occurring at the service desk rose from 37.4 to 50.6% following the move. Even small changes, like location moves, can influence and adjust patron behavior.

Despite the increased usage of the service desk following the course reserves move, patrons were still seeking circulation assistance from the

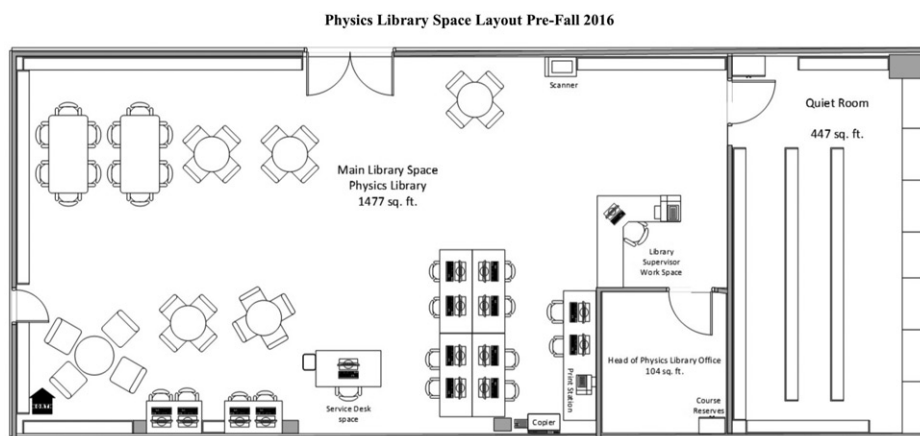


Figure 1. The Physics Library's physical layout prior to the transfer of course reserves in fall 2016 and the space's full rearrangement in July 2017.

librarian and library supervisor more than a third of the time. To ensure library personnel's time and expertise were being maximally utilized a larger scale rearrangement of the space was needed to encourage patron traffic away from the library supervisor and librarian's desks and towards the main service desk.

Steps to a new space

This space study was conducted from August 1, 2017 to June 30, 2018. However, planning for the study began in the spring 2017 semester with a meeting between the Director of Academic and Research Services and Physics Library's librarian to discuss changing the space of the Physics Library using small-scale, low-cost methods. A full-scale makeover and renovation of the space were not possible due to limited financial resources. Three goals were identified from this meeting:

1. Create wider aisles for easier movement
2. Create a more inviting atmosphere
3. Adjust service desk traffic flows to ensure patrons approach the service desk when needing assistance

Rearranging furniture configurations and increasing the service desk size to enhance its presence posed the simplest and most economical route. The original layout (Figure 1) was reviewed and compared to five proposed layouts created by the Physics Library librarian. The layout seen in Figure 2 was ultimately selected due to its consolidation of highly used equipment, the opening of floor space, and relocation of the service desk to a more prominent location based on high traffic areas. This layout also included a

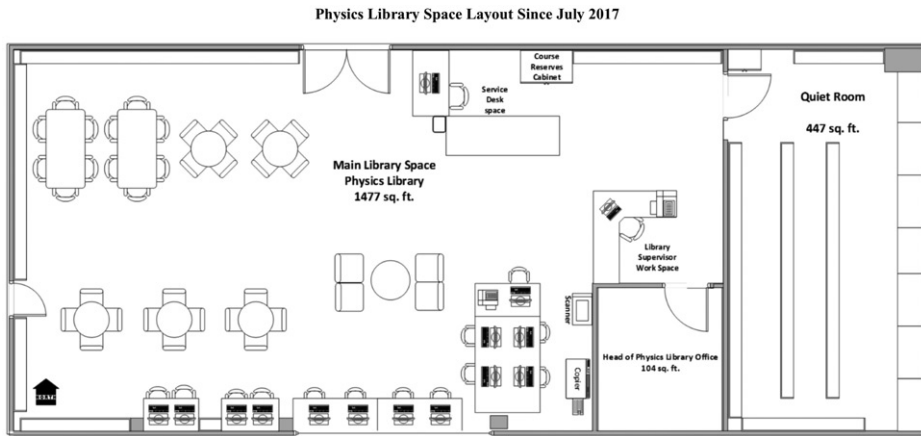


Figure 2. The Physics Library's layout post-rearrangement.

proposed increase in service desk size, to be accomplished by repurposing the librarian's existing desk.

After determining the preferred layout, the Physics Library librarian worked with University Libraries information technology (IT) staff to assess if any new wiring and ports would be required by the proposed space arrangement. Mapping existing electrical outlets and internet ports to the proposed layout showed that it could be done without any new technology infrastructure being required. If new technology infrastructure had been needed, a new layout would have been designed which incorporated the space's existing technology infrastructure.

With the approval of division leadership and library IT, an executive summary of the proposed plan was written explaining the purpose for the change and how the purchasing of a new desk (\$750) for the Physics Library's librarian would be the only costs accrued. The IT infrastructure in place would suffice and all other changes would come from moving or removing existing furniture and equipment. The executive summary accompanied the department's yearly equipment request at the end of May 2017 and was approved. The Physics Library was reconfigured into the new layout over the course of one day in July 2017. Of the three spaces that make up the Physics Library (quiet study room, librarian's office, and main room) only the main room was affected by the reconfiguration. The reconfiguration required one table to be removed, and a scantron reader, which the library housed for the Physics Department, to be relocated to faculty offices. Overall the space reconfiguration was completed with minimal resource investment.

Reconfiguring the space

Prior to the rearrangement, points of congestion were observed due to the placement of furniture and equipment as well as how patrons moved

through space. Group seating options were placed haphazardly across the main area while equipment was situated sporadically along the peripheries. Computer terminals jutted out into the middle of the space across from group seating thus creating narrow aisles along the path to highly used equipment. This often produced bottleneck traffic as patrons attempted to reach scanning and printing stations. Additionally, this row of computers created a physical barrier between high use points and the service desk while the library supervisor and librarian's workspaces were located on the same side as these destinations. This physical arrangement of space was producing negative "costs," whether physical or psychological, to patrons and causing them to avoid the service desk in favor of the library supervisor or librarian's desks.

To decrease the "costs" of the service desk and thus increase its "benefits," the service desk was relocated from the center of the space to adjacent the library's single entry/exit point. This location applied the right turn principle, an observed economy of movement behavior, which asserts pedestrians often perceive right-side choices to require the least amount of effort (Bitgood, 1995; 2006). The right-turn principle played a key role in the researchers' attempt to modify assistance-seeking behaviors, especially circulation assistance because now all patrons encounter the service desk on their right side when exiting as a way to limit their cost of effort. The new location also refocused patron attention to the service desk rather than the most immediate staff desk near them at the time of need. Other methods to increase usage of the ignored service desk and lower perceived "costs" included consolidating the service desk and all main patron destinations – computer terminals, printers, copiers, scanners, and course reserve materials – into a single zone within the library. Post rearrangement, all equipment and course reserve materials were located in immediate proximity to the service desk thus placing the desk in the time and space when patrons would most likely need it.

The relocation was coupled with an increase of service desk size by combing the original 50" × 27" rectangle service desk with the librarian's old 72" × 36" desk to create a large L-shaped desk. It had been hypothesized by staff prior to the rearrangement that the previous service desk set-up blended into the background due to its size and similar appearance to computer terminals around it. By increasing the prominence and changing the location, the service desk now visually commands patrons to acknowledge its existence. Also, before the rearrangement, there were several places where patrons could find items such as scrap paper, pencils, and ancillary tools (staplers, hole punch, etc.) which compounded the hazy messaging issues of the service desk. The increased size of the main service desk allowed for the removal of unnecessary furniture by relocating all of these

items to the service desk. As a result, the purpose of the service desk was recomunicated to emphasize it as the first stop for all assistance in the library.

Another outcome of the rearrangement that improved library staff–patron interactions, is that the service desk was no longer being blocked from view by furniture and equipment. This allows library staff to easily view activities in the main room and offer help where needed. It also allows patrons to see the service desk more easily and all patrons must pass by it on their way to the most highly used spaces and equipment.

Assessing impact

Methodology

The primary quantitative measurement used to determine the success of the library rearrangement was circulation statistics, which were used to quantify the number of check-outs by the terminal. Circulation statistics were pulled from Innovative's Sierra integrated library system (ILS). The number of check-outs – regularly circulating items as well as course reserves – were reviewed before and after the move. Standard checkout numbers do not include in house usage which is counted separately in Sierra. Sierra statistics can be broken down by terminal number. Circulation statistics were pulled for the two terminals in the Physics Library – terminal one represents the service desk and terminal two records the combined totals for items checked out by both the library supervisor and librarian at their desks. Circulation numbers for items checked out at the main service desk were compared to those items checked out by the librarian and the library supervisor.

In person, patron interactions were also tallied and analyzed. These statistics are self-reported by all library staff and recorded using tracking software. Compendium Desk Tracker software was used from the start of the study until July 2017 when the University Libraries migrated interaction tracking to Springshare's LibInsight. Patron interactions were classified as either "Directional," "Research/Reference," or "Consultation" throughout the course of the study. "Directional" refers to assistance provided by staff that does not include locating and/or demonstrating a resource (e.g. "Where is the bathroom?"). Any assistance that relates to a resource is considered "Reference/Research." "Consultation" is used to record in-depth research interactions and are primarily handled by the librarian. "Consultation" statistics were not considered in this study as all consultations should be referred to the librarian regardless of the desk the patron approaches first.

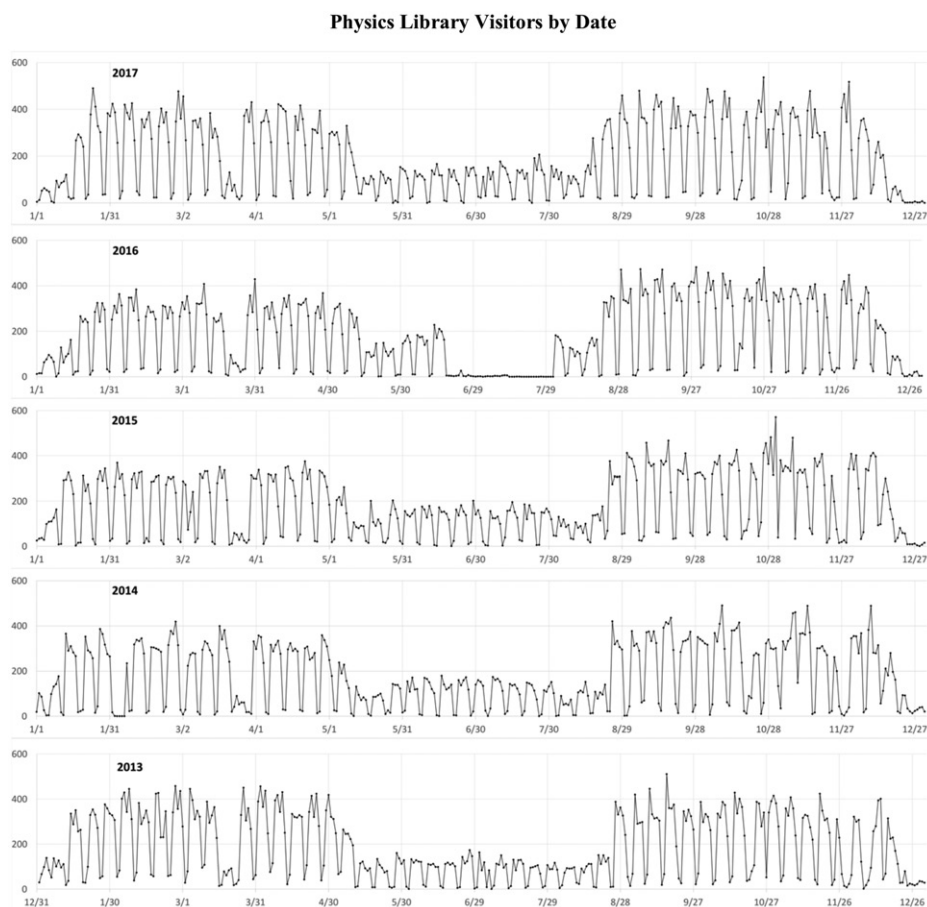


Figure 3. Five-Year Door-Count Data. Y-axis shows number of visitors while X-axis represents the date. (Note the missing data in the summer of 2016 – the door counter was not functioning in part of June through the end of July.).

The number of patron interactions at the service desk was compared to the number of in-person interactions entered by the librarian and library supervisor. Unfortunately for this study, patron interactions were combined for the library supervisor and service desk staff until April of 2017. After that date, the patron interactions are recorded for the service desk separately; i.e. there is data for the service desk as well as for the librarian and supervisor starting in May 2017. It is worth noting that even though there is only hard data for patron interactions that are exclusive to the service desk for 3 months before the move, May includes the end of the semester and therefore represents heavy traffic in the Physics Library (Figure 3).

Finally, the number of visitors to the Physics Library before and after the rearrangement was also examined. A uni-directional, horizontal type door counter is installed at the entrance of the Physics library. With this type of

Physics Library Check-Outs by Month

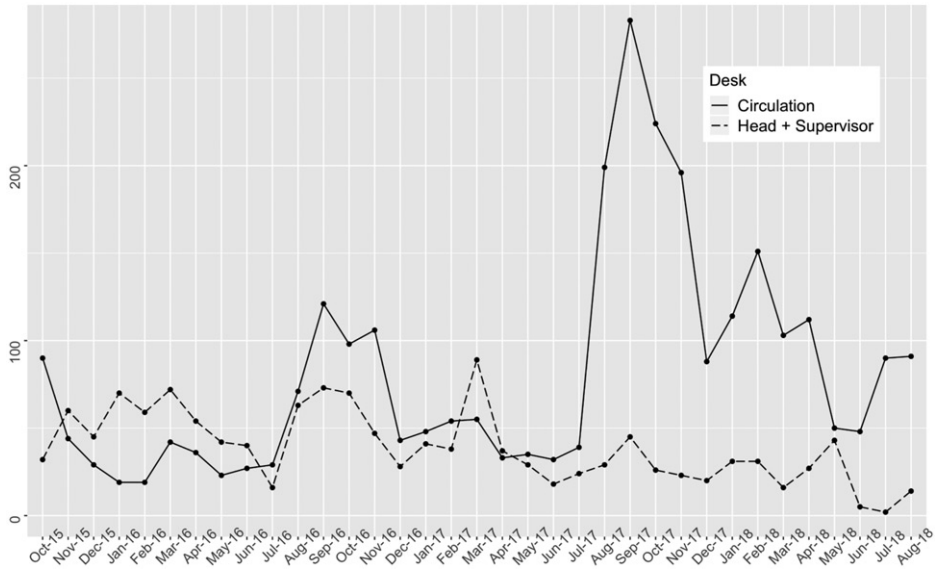


Figure 4. Check-outs for each staff terminal in Sierra (main service desk and librarian plus supervisor).

door counter, each time someone crosses the beam that extends horizontally across the door, an event is recorded. Because the counter is uni-directional it takes two events to make a single count. This assumes that each person will enter and then leave at a later time. Counts are sent wirelessly to a database managed by SenSource Vea software. The raw counts, each associated with a date and time, were downloaded and analyzed separately from Vea.

Results

The number of check-outs, regularly circulating as well as reserve materials, for each month are shown in Figure 4. The check-outs are separated into two groups – those items checked out at the main service desk (dashed line) and those checked out at the librarian and supervisor desks together (solid line). During the 2016 fall semester, the main service desk was checking out less than half (31% of total check-outs) of materials. By the 2016 summer semester, the two groups checked out roughly the same number of items. In fall 2016, the service desk exceeded the other desks in check-outs making up 63% of total check-outs. The spring 2017 semester saw the numbers for the two groups even out again. After that, all of the semesters including the date of the move (August 2017), the check-outs at the service desk make up 75–87% of total check-outs. The total number of check-outs for the Physics Library (both groups) increases in the time period shown.

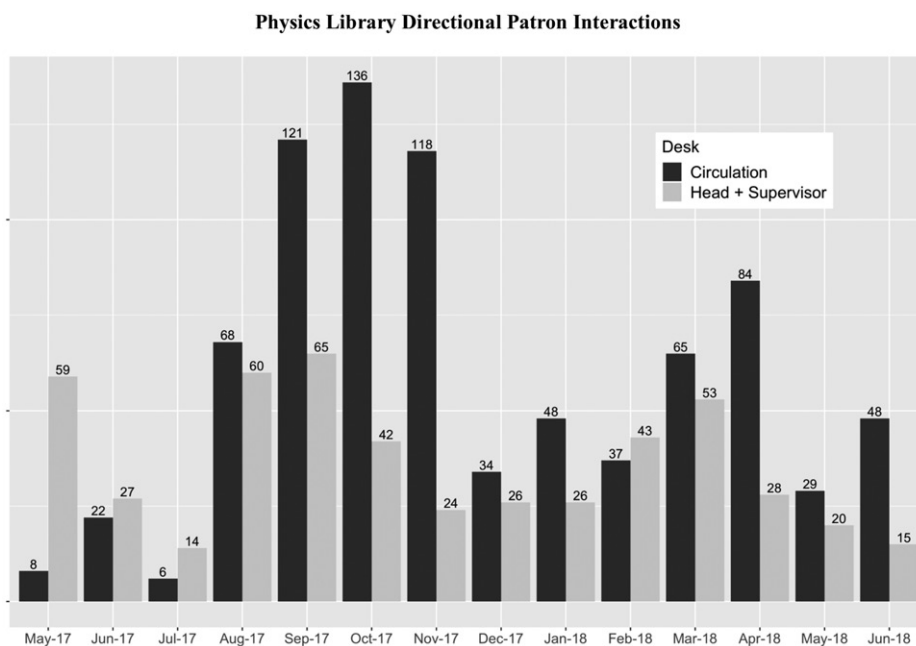


Figure 5. Directional interactions between staff and patrons.

The spring semesters go from 371 total check-outs in 2016 to 395 in 2017 to 585 in 2018. For fall, there were 586 checkouts in 2016 and 905 in 2017. The summer semesters are anomalous in this aspect with 311 checkouts in 2016, 405 in 2017, and 343 in 2018.

Figure 3 shows the door counts from the years preceding and the year of the study. In fiscal year (FY) 2015 (July 2014 – June 2015), there were 62,501 total visitors to the Physics Library. This increased to 64,332 visitors in FY 2016 and increased again to 65,496 in FY 2017. During the year of the study, directly before and after the rearrangement, the total number of visitors to the Physics Library dropped to 62,414 for FY 2018.

The number of patron interactions is visualized in Figure 5. Directional interactions and reference interactions data is representing in Figure 6. Each figure is separated into two groups – interactions occurring at the main service desk (black bar), and interactions taking place at any other terminal/desk (grey bar). Results from the directional patron interaction data show a change from before the move to after. Before space was re-designed (prior August 2017) the service desk staff recorded 12–45% of total directional interactions. After the redesign, interactions at the desk increased, which was recorded by the service desk staff as 55–83% of the total directional interactions. Similarly, the percentage of reference interactions recorded by staff at the main service desk increased after the reconfiguration. For both directional and reference interactions, data is anomalous

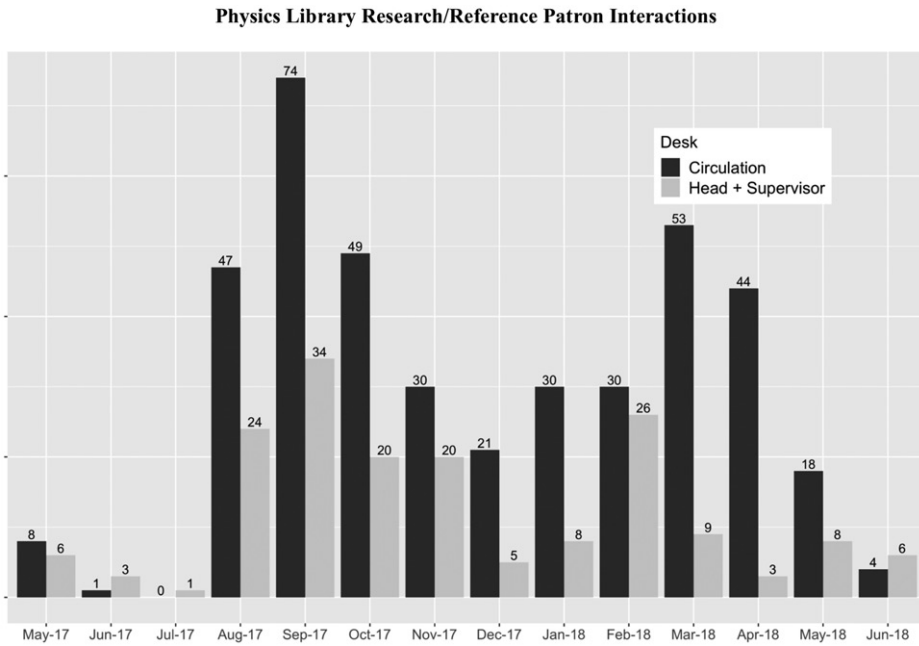


Figure 6. Reference interactions between staff and patrons.

for the month of February 2018. This anomalous data coincides with the library's large inventory project. The service desk was left unoccupied at times while staff completed the project. Because of this, it is not unexpected that the library supervisor and librarian would have a greater percentage of patron interactions during this period.

Discussion

Behavior setting theory claims that a person's environmental setting and the objects within it have a direct influence on human behaviors (Scott, 2005). The behaviors patrons engage in as a result of our setting's (the library as a whole) design and use of objects (furniture, equipment, signage, etc.) impacts how library spaces, resources, and staff are used. Understanding behavior setting's role is important but recognizing the specific ways human behavior is influenced by the objects in our spaces is even more crucial. Managers who understand the intersectionality of space design and human behavior theory are better able to design library spaces which promote desired behaviors. The Physics Library rearrangement was initiated to maximize the use of limited space and address service desk issues related to patron assistance-seeking behavior in order to increase staff efficiencies. In the case of this study, addressing these issues did not require large amounts of financial resources or complete space remodels.

Results suggest that librarians apply theoretical approaches from literature with ingenuity in an attempt to innovate and find low-cost solutions to space issues when faced with poorly designed spaces and limited budgets.

Patron interaction statistics during the study showed 65–35% split, with the service desk handling the majority of reference and directional transactions post rearrangement. This data provides limited insight to the rearrangement's impact as it could not be compared between the service desk and the library supervisor and librarian prior to April 2017 due to the service desk and library supervisor using a single login to track patron interaction statistics. It should be noted that signage was not in the library pre- or post-rearrangement due to the size of the space so communication of services and resources were visually implied by design and arrangement.

By applying economy of movement principles to the Physics Library's environment post-rearrangement, it is evident that proximity and convenience of location in relation to the time of need is the most influential factor in determining a patron's decision of which service desk to seek assistance from. This influence could be seen prior to the rearrangement when the service desk was located the furthest away from the majority of patrons at their time of need. The space's rearrangement was based on understanding both Larason and Robinson's (1984) approachability model and economy of movement's impact on pedestrian behavior in order to influence patrons' subconscious "costs" calculations when selecting which service desks to approach for assistance. By strategically relocating all highly used materials and equipment into a consolidated space and placing the service desk within this zone, along with ancillary tools, the Physics Library successfully recommunicated the service desk's purpose to patrons which translated into new patron behavior patterns.

Another component of the rearrangement, which had a small impact on service desk usage, was group seating being consolidated to the west side of the library. This opened up the space to allow easier movement through larger aisle ways and limiting the number of chairs blocking pathways. A small number of computers still continued to protrude into the center of the library but this protrusion was cut to half after the rearrangement. Additionally, the printing station was moved from a closed off corner to the end of the protruding row of computers. Patrons no longer queue in aisles due to this change which has eliminated traffic congestion and the related issues of blocked access to the service desk, equipment, and additional computers. Patrons waiting for printing now utilize soft seating located in the middle of the library adjacent to the print release station.

By maximizing the space to create a more open environment, it was expected the trend of increased visitor traffic of the Physics Library would continue as it had the previous years which would theoretically result in

more use of the service desk. Surprisingly, however, there was a decrease from 65,496 in FY 2017 to 62,414 in FY 2018 in the number of visitors when the study took place. In the preceding fiscal years, visitor numbers had increased by 4.5% in FY 2015 to 2.9% in FY 2016 and 1.8% in FY 2017. While the reason is uncertain, the decrease in visitor numbers during the study actually strengthens this study's findings and claim that patron behavior and service desk usage is directly correlated to the physical arrangement of a library's space.

On going impact

The rearrangement and increased service desk use have additionally led to a need for increased staff training. While the Physics Library has operated on a "referral" reference service model for years, it was imperative for student workers and part-time staff to participate in enhanced reference and circulation training to prepare them for increased patron engagement. Training modules were created using the Blackboard course management system. New and returning service desk staff are now trained consistently, and the module provides assessment data to indicate where a follow-up training is needed. This change led to patrons receiving higher quality, consistent service when interacting with the desk staff. Oud and Genzinger (2016) experienced similar results in regard to consistency of staff answers after utilizing a blended service desk.

Due to increased training and the service desk staff handling most of the circulation and reference transactions, the librarian and library supervisor are now free to handle more complex transactions that better utilize their expertise and manage library operations more efficiently. As seen with previous research on the single-service desk service model, having paraprofessionals conduct the majority of public service transaction has allowed the library supervisor and librarian to engage in other duties, particularly relationship building with faculty and review of collections and services (Arndt, 2010; Ryan, 2008). This is especially important for the Physics Library librarian, which is a tenure-track position, as this shift of work has allowed them to devote time to achieving the expected performance duties, service, and scholarship requirements for tenure.

How to successfully reconfigure your small academic branch library

As is the case for all libraries, small academic branch libraries seek to provide spaces, resources, and services that best fulfill their communities' needs and expectations. However, when these types of libraries discover potential space design problems, methods of addressing these issues are

often limited compared to their larger, free-standing counterparts. Departmental based branch libraries are especially limited by their inability to change their architectural footprint due to the lack of additional space availability, and may find that the department is unlikely to release any extra space for a larger library when it can be used for additional faculty office space, classrooms, or labs (Little, 2013). Finances also play a large roll in space designs, whether full remodels occur or not, and this element is wholly dependent on budgetary funds being available.

To work around these limitations, it is important for library managers to review statistical data for the service points being impacted. Goals for what the space should represent and which patron behaviors should be encouraged need to be defined (Sandy, Krishnamurthy, & Scalfani, 2014). Once goals are established, spaces should be assessed with a critical eye towards how their arrangements are influencing patron behaviors, either wanted or unwanted. Understand how your patrons move within the library and use its resources, services, and staff, and look for ways to lower patron “costs” while increasing “benefits.”

While this study proved that proximity, awareness, and packaging play a role in predicting patron behavior, as set forth in the approachability model, it also shows that physical costs to patrons potentially play the most influential role in which service point they seek assistance from. As such, it’s important these are factored into your space planning goals and physical arrangements.

When initiating a space rearrangement, engage administrators at the brainstorming and planning stages to gather support and gauge the waters for potential financial resources available. Work with your information technology (IT) department to ensure all equipment requiring IT infrastructure are mapped for connectivity and power based on the proposed rearrangement configuration. Set a timeline for implementation of the new rearrangement as well as an assessment timeframe accompanied by a defined set of metrics.

Large monetary investments are not needed to engage in an effective space redesign. Purchasing one or two new pieces of furniture/equipment coupled with rearranging existing furniture and equipment can easily influence new patron behaviors. This low-cost method is adaptable and allows managers to experiment with different arrangements to achieve their goals.

Conclusion

Patrons decide to use a particular service point for many different reasons but it is imperative that library managers recognize their role in influencing these behaviors. If patrons aren’t utilizing a particular service desk,

managers should not assume that it is because their needs are being met by another avenue. Instead, managers should study their spaces to determine if this is a cause for the lack of usage and adjust their spaces, if needed, to encourage new patron behaviors. This can be achieved by understanding how patrons use and move through library spaces and rearranging the library's space so popular resources and destinations are positioned in proximity to the service desk that patrons are being encouraged toward, and designing the physical desk to recommunicate its purpose.

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References

- Aabo, S., & Audunson, R. (2012). Use of library space and the library as place. *Library & Information Science Research*, 34(2), 138–149. doi:10.1016/j.lisr.2011.06.002
- Arndt, T. S. (2010). Reference service without the desk. *Reference Services Review*, 38(1), 71–80. doi:10.1108/00907321011020734
- Baker, N., Furlong, K., Consiglio, D., Lankewicz Holbert, G., Milberg, C., Reynolds, K., & Wilson, J. (2018). Demonstrating the value of “library as place” with the MISO survey. *Performance Measurement and Metrics*, 19(2), 111–120. doi:10.1108/PMM-01-2018-0004
- Barker, R. G. (2002). *Biographical dictionary of psychology* (2nd ed.). London, UK: Routledge. Retrieved from http://0-search.credoreference.com.library.uark.edu/content/entry/routbiopsy/barker_roger_garlock/0
- Bartle, L. R. (1999). Designing an active academic reference service point. *Reference & User Services Quarterly*, 38(4), 395–401.
- Becket, M., & Smith, H. B. (1986). Designing a reference station for the information age. *Library Journal*, 111(7), 42–46.
- Bitgood, S. (1995). Visitor circulation: Is there really a right-turn bias? *Visitor Behavior*, 10(1), 5. Retrieved from http://kora.matrix.msu.edu/files/31/173/1F-AD-85-8-VSA-a0a1q6-a_5730.pdf
- Bitgood, S. (2006). An analysis of visitor circulation: Movement patterns and the general value principle. *Curator: The Museum Journal*, 49(4), 463–475. doi:10.1111/j.2151-6952.2006.tb00237.x
- Bitgood, S., & Dukes, S. (2006). Not another step! Economy of movement and pedestrian choice point behavior in shopping malls. *Environment and Behavior*, 38(3), 394–405. doi:10.1177/0013916505280081
- Bonnet, J. L., & McAlexander, B. (2012). Structural diversity in academic libraries: A study of librarian approachability. *The Journal of Academic Librarianship*, 38(5), 277–286. doi:10.1016/j.acalib.2012.06.002
- Bonnet, J. L., & McAlexander, B. (2013). First impressions and the reference encounter: The influence of affect and clothing on librarian approachability. *The Journal of Academic Librarianship*, 39(4), 335–346. doi:10.1016/j.acalib.2012.11.025
- Campbell, J. D. (2007). Still shaking the conceptual foundations of reference: A perspective. *The Reference Librarian*, 48(2), 21–24. doi:10.1300/J120v48n02_05

- Cha, S. H., & Kim, T. W. (2015). What matters for students' use of physical library space? *The Journal of Academic Librarianship*, 41(3), 274–279. doi:[10.1016/j.acalib.2015.03.014](https://doi.org/10.1016/j.acalib.2015.03.014)
- Cortes-Villalba, C., Gil-Leiva, I., & Artacho-Ramirez, M. A. (2017). Emotional design application to evaluate user impressions of library information desks. *Library & Information Science Research*, 39(4), 311–318. doi:[10.1016/j.lisr.2017.11.004](https://doi.org/10.1016/j.lisr.2017.11.004)
- Crooks, J. M. (1983). Designing the perfect reference desk. *Library Journal*, 108(10), 970–972.
- Dinkins, D., & Ryan, S. M. (2010). Measuring referrals: The use of paraprofessionals at the reference desk. *The Journal of Academic Librarianship*, 36(4), 279–286. doi:[10.1016/j.acalib.2010.05.001](https://doi.org/10.1016/j.acalib.2010.05.001)
- Ford, B. J. (1986). Reference beyond (and without) the reference desk. *College & Research Libraries*, 47(5), 491. doi:[10.5860/crl_47_05_491](https://doi.org/10.5860/crl_47_05_491)
- Heikkila-Furrey, J., Kearns, S. K., & Littrell, L. (2007). Reference by your side: Redesigning the library help desk. *The Reference Librarian*, 48(2), 41–59. doi:[10.1300/J120v48n02_08](https://doi.org/10.1300/J120v48n02_08)
- Houston, A. M. (2015). Revisiting library as place: Balancing space planning priorities by focusing on core purpose. *Reference & User Services Quarterly*, 55(2), 84–86. doi:[10.5860/rusq.55n2.84](https://doi.org/10.5860/rusq.55n2.84)
- Humphries, A. W. (1993). Designing a functional reference desk - planning to completion. *RQ*, 33(1), 35–40.
- Jazwinski, C. H., & Walcheski, C. H. (2011). At the mall with children: Group size and pedestrian economy of movement. *Environment and Behavior*, 43(3), 363–386. doi:[10.1177/001Jaz3916510364461](https://doi.org/10.1177/001Jaz3916510364461)
- Kim, J. (2016). Dimensions of user perception of academic library as place. *The Journal of Academic Librarianship*, 42(5), 509–514. doi:[10.1016/j.acalib.2016.06.013](https://doi.org/10.1016/j.acalib.2016.06.013)
- Larason, L., & Robinson, J. S. (1984). The reference desk: Service point or barrier? *RQ*, 23(3), 332–338.
- Lewis, D. W. (1995). Traditional reference is dead, now let's move on to important questions. *The Journal of Academic Librarianship*, 21(1), 10–12. doi:[10.1016/0099-1333\(95\)90146-9](https://doi.org/10.1016/0099-1333(95)90146-9)
- Little, G. (2013). The space race. *The Journal of Academic Librarianship*, 39(4), 351–353. doi:[10.1016/j.acalib.2013.05.001](https://doi.org/10.1016/j.acalib.2013.05.001)
- Macdonald, H. (1986). Designing a reference desk. *Texas Library Journal*, 62, 175–179.
- Mandel, L. (2016). Visualizing the library as place. *Performance Measurement and Metrics*, 17(2), 165–174. doi:[10.1108/PMM-04-2016-0016](https://doi.org/10.1108/PMM-04-2016-0016)
- Maxymuk, J. (2010). Library as a place in space. *The Bottom Line*, 23(3), 128–131. doi:[10.1108/08880451011087702](https://doi.org/10.1108/08880451011087702)
- McCormick, E. J. (1970). *Human factors engineering* (3rd ed.). New York: McGraw-Hill.
- Miles, D. B. (2013). Shall we get rid of the reference desk? *Reference & User Services Quarterly*, 52(4), 320–333. doi:[10.5860/rusq.52n4.320](https://doi.org/10.5860/rusq.52n4.320)
- Moore, R. L. (1953). Pedestrian choice and judgment. *Journal of the Operational Research Society*, 4(1), 3–10. doi:[10.1057/jors.1953.2](https://doi.org/10.1057/jors.1953.2)
- Morgan, L. (1980). Patron preference in reference service points. *RQ*, 19(4), 373–375.
- O'Kelly, M., Scott-Webber, L., Garrison, J., & Meyer, K. (2017). Can a library building's design cue new behaviors?: A case study. *Portal: Libraries and the Academy*, 17(4), 843–862. doi:[10.1353/pla.2017.0049](https://doi.org/10.1353/pla.2017.0049)
- O'Neill, K. L., & Guilfoyle, B. A. (2015). Sign, sign, everywhere a sign: What does “reference” mean to academic library users? *The Journal of Academic Librarianship*, 41(4), 386–393. doi:[10.1016/j.acalib.2015.05.007](https://doi.org/10.1016/j.acalib.2015.05.007)

- Oud, J., & Genzinger, P. (2016). Aiming for service excellence: Implementing a plan for customer service quality at a blended service desk. *Journal of Access Services*, 13(2), 112–130. doi:[10.1080/15367967.2016.1161521](https://doi.org/10.1080/15367967.2016.1161521)
- Pierson, R. (1977). On reference desks. *RQ*, 17(2), 137–138.
- Pierson, R. (1985). Appropriate settings for reference service. *Reference Services Review*, 13(3), 13–29. doi:[10.1108/eb048907](https://doi.org/10.1108/eb048907)
- Ryan, S. M. (2008). Reference transactions analysis: The cost-effectiveness of staffing a traditional academic reference desk. *The Journal of Academic Librarianship*, 34(5), 389–399. doi:[10.1016/j.acalib.2008.06.002](https://doi.org/10.1016/j.acalib.2008.06.002)
- Sandy, J. H., Krishnamurthy, M., & Scalfani, V. F. (2014). Repurposing space in a science and engineering library: Considerations for a successful outcome. *The Journal of Academic Librarianship*, 40(3–4), 388–393. doi:[10.1016/j.acalib.2014.03.015](https://doi.org/10.1016/j.acalib.2014.03.015)
- Schulte, S. J. (2011). Eliminating traditional reference services in an academic health sciences library: A case study. *Journal of the Medical Library Association: JMLA*, 99(4), 273–279. doi:[10.3163/1536-5050.99.4.004](https://doi.org/10.3163/1536-5050.99.4.004)
- Scott, M. M. (2005). A powerful theory and a paradox - ecological psychologists after Barker. *Environment and Behavior*, 37(3), 295–329. doi:[10.1177/0013916504270696](https://doi.org/10.1177/0013916504270696)
- Sider, L. G. (2016). Improving the patron experience: Sterling memorial library's single service point. *Journal of Access Services*, 13(2), 91–100. doi:[10.1080/15367967.2016.1161519](https://doi.org/10.1080/15367967.2016.1161519)
- van Beynen, K., Pettijohn, P., & Carrel, M. (2010). Using pedestrian choice research to facilitate resource engagement in a mid-sized academic library. *The Journal of Academic Librarianship*, 36(5), 412–419. doi:[10.1016/j.acalib.2010.06.005](https://doi.org/10.1016/j.acalib.2010.06.005)
- Venner, M. A., & Keshmiripour, S. (2016). X marks the spot: Creating and managing a single service point to improve customer service and maximize resources. *Journal of Access Services*, 13(2), 101–111. doi:[10.1080/15367967.2016.1161520](https://doi.org/10.1080/15367967.2016.1161520)
- Warnement, M. (2003). Size matters: The debate over reference desk height. *Portal: Libraries and the Academy*, 3(1), 79–87. doi:[10.1353/pla.2003.0021](https://doi.org/10.1353/pla.2003.0021)
- Waxman, L., Clemons, S., Banning, J., & McKelfresh, D. (2007). The library as place. *New Library World*, 108(9/10), 424–434. doi:[10.1108/03074800710823953](https://doi.org/10.1108/03074800710823953)

RETURN ON INVESTMENT (ROI) FROM A BUSINESS SCHOOL LIBRARY: AN INDIAN PERSPECTIVE

DR H. ANIL KUMAR

INTRODUCTION

Libraries and the library profession are currently experiencing one of the most difficult periods in modern history. In the financial-crisis-impacted USA, UK and European Union, libraries are facing multiple challenges, including budget constraints, restricted funds and reducing grants, not to mention the increasing cost of books and periodicals. Perhaps unsurprisingly, this pressure on libraries, whether academic or public, is continuing to increase (Aabo, 2009). The intensity of the challenges posed to libraries seems to have grown with the proliferation of search engines like Google and social media platforms like Facebook that deliver quick results irrespective of the location of the user. Libraries have been looking at this digital landscape with awe and devising plans to work with and against these developments. Interestingly, studies since the financial crisis reveal that community libraries have witnessed increased use in terms of walk-ins and have also functioned as job 'search and seek' facilitation centres. The increase in the use of community/public libraries during the financial crisis contrasts with the general feeling that there is a trend towards a decrease of reading habits among students. It is also a pity that during these times when libraries were most required, government was reluctant to fund them (Eakin and Pomerantz, 2009).

During the same period in emerging economies such as India, we have seen large investments and a surge in the number of educational institutions being established by public and private organizations (Sarnikar, 2010). This overall increase is evident across the education landscape in India, ranging from primary education to higher education institutions. Plans are also afoot to develop the vocational education scene in India, with large investments in skill development programmes. The government is attempting to address issues of access, admissions, delivery, teacher training, and research and evaluation processes across various education sectors. It is against this background that we see improvements in both the quantity and quality of Indian education. This phenomenon has had implications for the library sector. New libraries are being established along with new institutions, and the infrastructure and financial resources of existing libraries are being enhanced. It is therefore rare

to hear about challenges like budget cuts, withdrawal of funds and so on from any major Indian library.

These developments do not imply that all is well with libraries in India, but broadly reflect the fact that the financial crisis has not affected their budgets or operations. However, this certainly does not indicate any lack of challenge for Indian libraries, compared to those faced by their counterparts globally, in making their value explicit. Business schools are not only being judged by the placements that their students secure, but more so by the salaries offered. It is not uncommon for a student who rarely visited the library or consulted scholarly papers and used a single textbook for an entire course to end up with dream salary in a great company. It is also not a rare occurrence for students to get good grades with limited class notes and no extra reading at all. Such instances reflect the poor standing of libraries and their non-existent role in the education process.

However, we are now witnessing a trend to improve the quality of business education in India. One of the main factors responsible for this positive trend is the active regulatory role of the government. The recent unfavourable response by the market, in terms of a drop in applications and unemployability of graduates, is also forcing business schools to introspect and offer quality programmes. Attempts are being made to increase the number of teachers, adopt new teaching methods, focus on learning opportunities and emphasize research. Active regulation in India, though leaving much to be desired, has been encouraging with respect to mandating institutions to subscribe to library resources. Recently, the Indian regulatory body of technical education, in a circular, clearly mandated subscription to e-resources like EBSCO and ABI Inform by business schools. A focus on research is becoming very important at business schools that desire qualitative growth, and this will hopefully result in the development of good libraries.

In this context of review and introspection, business schools are rethinking their existing investments, making it all the more important for libraries to make their value more explicit. Even the harshest of critics will agree that using libraries does help – and definitely over the long term.¹ This is even truer in academic settings where education is the core activity for all stakeholders involved. In fact, a survey among US and Canadian students, conducted by Cain and Reynolds (2006), found that the library was one of the main facilities rated extremely highly in students' choice of institution. The same authors found that the library was not only important in the selection or rejection of the institution, but also scored highly on the satisfaction rating by the students once they joined the institutions and experienced the library's services. It is in this context that this chapter focuses on return on investment (ROI) for a management or business library.

1 See Stone, Pattern and Ramsden (2012) for recent statistical evidence.

RETURNS FROM LIBRARIES

It is now being realized that it is necessary to measure the value delivered by libraries and express that value in concrete terms. It follows, then, that we need to understand library outcomes, impact and returns. Library outcomes are broad indications of the desired objectives that a library aspires to achieve. To simplify these terms of outcomes, impact and returns, let us presume that the desired outcome of a public library is to improve information literacy among its community members. The impact of the library can be said to be the change in information literacy level among the community members who use the library. Thus, one of the returns of this library could be measured as the number of people who have enhanced their information literacy level through library use. Extending this concept is the term 'ROI' in which returns correspond to the investment made. White states that:

[ROI] is simply defined as a ratio of resources (usually financial) gained or lost in a process/investment/result to the total amount of resources provided. A positive ROI indicates that more benefit than cost has been generated by the process/investment/result; a negative ROI indicates less benefit was generated than the resource provided. (White, 2007, p. 6)

Since other studies (for example, OCLC, 2003) also indicate returns in the form of tangible and intangible benefits, it may be appropriate to delve into the concepts of 'tangible', 'intangible', 'direct' and 'indirect' in the context of benefits and costs:

- Tangible benefits or costs are those that are explicit and can be easily identified and measured whereas intangible benefits or costs are those that are implicit and cannot be easily identified or measured. In the context of an academic library, tangible benefits would include number of downloads of papers, user walk-ins and so on, while tangible costs would include the library's budget, staff salaries and so on.
- Intangible benefits of libraries would include the library's contribution to the academic ambience of a business school and its contribution to users' positive perceptions of the quality of the institution, amongst other things, and the intangible costs could include the value of the faculty's time in developing library policies.
- Direct benefits are those benefits that are derived directly – for instance, an increase in the ranking of a business school based on the large collection of its library.
- Indirect benefits of a library are those that are not direct outcomes. For instance, a library provides services to faculty of other business schools and consequently benefits the students of those schools. While this does not directly benefit the host business school, it may be a desired benefit, if the larger objective of the host business school is to improve quality of management education in the country.

- Direct costs are costs that are directly invested in a library such as library budget, library staff salaries and so on.
- Indirect costs are costs incurred indirectly for the functioning of a library such as salaries of accounts staff of the host institution, who handle library bills, salaries of computer professionals who maintain the institute network and the like.

Measuring ROI is a complex process because identifying intangible benefits is not simple and straightforward and the timeframe to actually experience the benefits from using libraries is quite long. Yet, although measuring value in terms of intangible benefits may be difficult, it is not impossible. This is precisely why it is important to develop a framework to measure libraries' ROI while exploring various methods to determine the ROI.

PUBLIC LIBRARY ROI STUDIES

The valuation or evaluation studies of libraries has generally included simple surveys conducted to collect data on a variety of issues like satisfaction, perception, quality and relevance of various library services. Data are generally collected from users, staff and management through questionnaires, and, in some cases, interviews are conducted. These time-tested methods provide only a limited indication of the value of libraries, but do offer useful insights for internal management and policy-making. In fact, it is worth noting that these methods of collecting data for studies relating to reviewing the value of libraries have been found useful (OCLC, 2003, 2005, 2010).

One of the earliest studies in this area was heralded by the National Center for Education Statistics (NCES) that has provided data on staffing, collection size, operating expenditures, programmes presented, circulation and so on for public libraries in the USA since 1989. The NCES Public Library Peer Comparison Tool is used to assess services that are provided in terms of satisfaction, usage and efficiency.

ROI studies have been undertaken for various types of libraries, including public libraries, school libraries, special libraries and academic libraries. Some of the studies that have been popularly quoted, especially in the US public-library sector, were conducted by the Americans for Libraries Council (ALC), the Urban Libraries Council (ULC) and the states of Colorado and Florida (Imholz and Arns, 2007a, 2007b; ULC 2007; Steffen et al., 2009; McClure et al., 2001). These studies look at the ROI of public libraries and give a favourable verdict. For example, the report by the ULC (2007) states that the public libraries are essential for cities and that they provide economic value to the community through, amongst other things, literacy programmes, preparation of technology workers and resources for small businesses.

All the studies cited above note the variety of methods that have previously been used in ROI studies. Imholz and Arns observe that ‘... public library valuation researchers have sought and adopted valuation methods from the field of economics ... The studies reviewed clearly demonstrate the field’s growing sophistication, showing advancement from simple questionnaires to complex surveys’ (2007a, p. 32). In the same authors’ summary of reviews of existing methods, they highlight: (1) cost–benefit analysis; (2) contingent valuation; and (3) secondary economic impact analysis. These can be described as follows:

1. *Cost benefit analysis* is the cost of running a service as compared to the benefit provided by the service. Most of the studies using this method looked at the direct benefits, while listing the indirect benefits.
2. In *contingent valuation* methodology, a value is assigned to each service based on the users’ perception of the value. The users’ perceptions can be captured through a survey to find out how much the users would be willing to pay for such a service and, on the basis of these perceptions, a value is assigned to the service.
3. *Secondary economic impact analysis* considers the knock-on benefits to the external community from the existence of libraries, such as library staff living and spending locally, and the existence of other businesses – for example, book vendors, binding, printing, computers – dependent on, or benefited by, libraries. Though not direct, these factors are considered important, as they have an economic impact in the library’s immediate environment.

In their study, Imholz and Arns (2007b, p. 26) propose a new method called ‘Social Return on Investment’ (SROI), which they define as ‘... a measurement approach developed by expanding traditional cost/benefit analysis to include the economic value of cultural, social, and environmental impacts’. The main argument in favour of this method is the fact that the social impact of libraries, especially public libraries, cannot be ignored. This approach is extended by the balanced scorecard and the triple bottom line methods when calculating ROI: the balanced scorecard looks at SROI issues by including the social costs and returns; in the triple bottom line approach, the idea is to include ecological (environmental) and social factors, in addition to the finances, when calculating the organization’s bottom line.

ROI IN ACADEMIC LIBRARY SETTINGS

The studies on ROI clearly indicate not only a worldwide interest and concern, but also the continuing evolution of various ROI methods and techniques. While it may look easier to evaluate the performance of a public library than that of an academic library, one must agree that calculating the value of libraries is itself complex and difficult. Among all the ROI studies, the ones that focused on public libraries dominated, constituting about 80 per cent (Aabo, 2009). However, in the case of

public-library ROI studies too, it can be said that methods were evolving and it would take time for a mature universal model to be developed.

In the academic libraries sector, it may be interesting to understand the various approaches and methods adopted in the studies undertaken. Studies on ROI have predominantly been supported by library associations, and one of the noteworthy studies on academic libraries was by the Association of College and Research Libraries (ACRL, 2010). One of the core objectives of this report was to focus on library value that is demonstrated mainly to external audiences, and it does not emphasize measures of perception of quality and satisfaction with library services. The ACRL report (2010), with a mandate to address the concerns of institutional leaders, lays out 10 parameters for measuring library value:

1. *Student enrolment*: strongest profile of students joining the institution or, in other words, the best of the students choosing to join the institute;
2. *Student retention and graduation*: the number of students initially joining the institution, who stay on and graduate;
3. *Student success*: success of students in terms of ability to perform well in internships, placements secured or entry to reputed institutions for further education;
4. *Student achievement*: success in terms of academic performance and grades;
5. *Student learning*: the library's direct and connected role in student learning;
6. *Student experience*: the library's role in the students' experiences in the future;
7. *Faculty research productivity*: quality and quantity of faculty research publications and the library's contribution;
8. *Faculty grants*: the library's role in the success of grants being awarded to faculty;
9. *Faculty teaching*: the library's role in the teaching success or effectiveness of faculty;
10. *Institutional reputation*: the library's role in the overall reputation of the institution.

The report also suggests various initiatives to document the role of the library in delivering value in these 10 areas and recommends a host of activities around these 10 areas to increase value. It is interesting to note that of the 10 areas, six are related to students and include the library value, from before students decide to join an institution, to the point at which they actually experience the library. For the faculty, the report looks at research productivity, grants that can be obtained, teaching and the role of the library in these areas. The last area listed in the report is institutional reputation and the role a library plays in this area.

The ROI research carried out by Grzeschik (2010), based on the work of Luther (2008), which reviewed the University of Illinois at Urbana-Champaign, USA, focused on the Berlin School of Library and Information Science and the University

Library of the Humboldt University, Berlin, Germany. Luther's (2008) study of ROI can be considered the first study in an academic library setting. It was based on the work of Strouse (2003) who developed a ROI model for corporate and government libraries. Strouse's (2003) model was based on the concept of the outcome or contribution of corporate and government libraries to their parent institutions, in terms of the time and cost saved by its users and also the income generated by using the library resources. Extending this to academic settings, Luther (2008) mainly looked at the success rate of grants awarded to faculty and its relation to the contribution of the library in the process. Grzeschik (2010) developed a similar model wherein the citations used in proposing grants by the faculty were included as a contribution by the library, and this was compared to the number of grants that were awarded with citations from the library and the average grant amount awarded. Luther's (2008) study reflected a healthy ROI of \$4.38 for every \$ spent at the University of Illinois at Urbana-Champaign (UIUC) library. Grzeschik (2010) and Kaufman (2008) report the utility of the UIUC model in calculating the ROI in academic library settings.

Mays, Tenopir and Kaufman (2010) present a report of important ongoing studies on ROI in academic libraries. The White Paper by Tenopir et al. (2010) was a result of the second phase of an Elsevier-sponsored study on ROI in academic libraries, and the study results showed the returns ranging from 0.64 to 15.54 for every \$ invested in the library. The study included eight institutions across eight countries and, among them, six institutions provided more than 1:1 returns. The study also revealed that in addition to generating grants, the library also furthered administrative goals such as 'attracting and retaining productive faculty, fostering innovative research, facilitating interdisciplinary collaboration, and raising the university's prestige' (Tenopir et al., 2010, p. 3).

The paper by Sidorko (2010) also indicated that faculty use of library resources to raise grants may have its own limitations, with variance due to the academic and research environment in the country of operation, the mission and nature of parent institution, difficulty in getting reliable data and so on.

In research conducted by Fonseca (2010), the ROI of an academic library is calculated by first considering circulation, interlibrary loan, computer accessibility and reference desk services offered by the library. The model then proposes to calculate the savings accrued to the users based on the cost of these services if they had been offered at a fee based on the cost of accessing these services. In simple terms, the ROI was:

... [the] ratio of value to cost. For example, if it were determined that the library's making accessible books in the sciences saved the library's clientele \$300,000 annually, and the library spent \$100,000 for those books, the ROI

ratio for that service would be 3:1, which could be better expressed as a return of \$3 for every \$1 invested. (Fonseca, 2010. p. 89)

On similar lines is Cornell University's value calculation. This included: circulation, interlibrary loan, laptops borrowed, Cornell content distributed through their e-commons system, in-depth consultations and research assistance by the library (Cornell University, 2013).

Chadwell (2011) researched into the value of academic library consortia and how it could be conveyed to all stakeholders, including students and faculty. The approach taken by Jackson and Hahn (2011) differed in the sense that it drew on methods from psychology of religion to derive the value of the place offered by academic libraries in their traditional form.

Brown (2011) undertook an interesting study by adopting three methods of value survey, calculator and contingent valuation to develop a value indicator in an academic library. Neal (2011) criticized the approach of looking at ROI from a perspective of investment on collection and returns from grants and argues in favour of exploring ROI from the impact value perspective in addition to financial value, and he urged librarians to go beyond existing studies that have left much to be desired so far as the value of an academic library is concerned.

THE INDIAN BUSINESS SCHOOL LIBRARY PERSPECTIVE

The area of ROI has been, directly and indirectly, dealt with in many studies, of which some have been quoted in the earlier section. ROI has been looked at from the purely financial perspective of returns to investment and has also been dealt with in terms of impact of libraries through the value generated. There is no doubt that, regardless of whether or not one is open to the idea of calculating ROI, it is pertinent to prove the worth and value of libraries. It is in this direction that I have attempted to explore ROI from a business library perspective in an Indian context. For this purpose, a brief survey was conducted among librarians from the top 10 business schools of India (see Table 5.1).

A request, along with a simple two-page questionnaire (in two sections), was sent to the librarians of these 12 business schools.² The first section of the questionnaire requested data on library budget for from 2008–09 to 2011–12. The objective of this section was to understand the financial position of libraries over a four-year period and also to look at the effects of the financial crisis, if there were any, on the budgets of Indian libraries.

2 No questionnaire needed to be sent to the author's business school; hence 12 questionnaires were sent out but 13 responses are recorded in Table 5.1.

Table 5.1 Top Indian business schools (2010–2011)

Business Schools	Rankings Publication 2010–2011					
	<i>Business India</i>		<i>Business Today</i>		<i>Outlook</i>	
	2010	2011	2010	2011	2010	2011
Faculty of Management Studies (FMS)	11	11	10	10	5	5
Indian Institute of Foreign Trade (IIFT)	13	13	7	7	9	9
Indian Institute of Management Ahmedabad (IIMA)	1	1	3	3	1	1
Indian Institute of Management Bangalore (IIMB)	2	2	1	1	2	2
Indian Institute of Management Calcutta (IIMC)	3	4	2	2	3	3
Indian Institute of Management Indore (IIMI)	15	15	4	4	8	8
Indian Institute of Management Kozhikode (IIMK)	16	16	6	6	7	7
Indian Institute of Management Lucknow (IIML)	6	6	5	5	NI*	NI
Indian School of Business (ISB)	4	3	8	8	NI	NI
Management Development Institute (MDI)	7	8	22	27	6	6
S.P. Jain Institute of Management & Research (SPJIMR)	8	7	14	15	10	10
XLRI Jamshedpur	5	5	11	10	4	4
IIM Shillong	NI	NI	9	9	NI	NI

Note: The leading sources of business school rankings in India are *Business India*, *Business Today* and *Outlook* magazines. The rankings of the latest two years – that is, 2011 and 2010 – were studied. The top 25 schools were selected from each of these rankings. From these top 25, every business school that ranked among the top 10 of any of these rankings were taken as the sample for this study. The master list as shown in Table 5.1 included 13 business schools.

* NI = not included.

The second part of the questionnaire attempted to understand: the perceptions of business school librarians on the most important benefits of the library; the important challenges that could be foreseen for the library in the future; whether the library's ROI could be measured and how; and whether libraries will still be relevant in the future. The rating for benefits and challenges was sought on a Likert scale of 1 to 10 where 1 was most important and 10 was least important.

From the questionnaires sent, responses were received from eight institutions. There were nine respondents in total (including my own institution), and this constituted a

response rate of almost 70 per cent. The budgets from each library were compiled, and the percentage change from the previous year's budget is shown in Table 5.2.

Table 5.2 clearly shows that all institutions, except one, witnessed an increase in budget allocation over a four-year (2008–11) period, with the year 2008 being considered as the base year. From Table 5.2 it is also evident that there were three instances of a decrease in budget allocation as compared to the previous year's budget. However, it was found through informal sources that in the two instances where the decrease was substantial (over 20 per cent) the reasons were attributed to change of leadership in the library and could be termed as instability of leadership at the top in the library.

Table 5.2 Indian business school libraries: percentage changes from previous year's library budgets

Business school	2009	2010	2011	Average % change
IIMA	11	19	11	14
IIMB	11	8	32	17
IIMC	-7	37	29	20
IIMI	49	33	-33	16
IIMK	7.5	5	5	6
IIML	16	6	11	11
ISB	0	6	-21	-5
MDI	12	6	16	11
IIMS	24	7	7	13
Average	14	14	6	11

It can also be seen from the data collected that where there was an increase in budget, all except one business school had an increase of more than 10 per cent over their previous year's budget. It can be inferred that the library budgets of top Indian business schools have been increasing over the past four years. If these libraries are considered together, the total average increase in budget over a four-year period was more than 11 per cent. This might imply that the financial crisis of the Western world does not seem to have affected library spending in Indian business schools.

Table 5.3 shows that the main benefit from a library perspective is seen as increasing the research output of the business school. The data also indicate that there is comparatively less variation in responses so far as the perception that libraries help students in their placements was concerned. It may be worth noting that the responses pointed to an intangible benefit of the library – that is, the library adds value to the academic culture of the business school. In terms of information sought

on future challenges for the library, responses were quite varied. Among these, it is interesting to note that faculty and student underuse were considered important, as was the issue of reduced staff and availability of good staff from the market. As seen in the library budgets section, the issue of budget reduction did not seem to worry Indian business school librarians. In terms of challenges, management cooperation was rated as least challenging. The variation in the responses of librarians on future challenges is worth noting.

Table 5.3 Perceptions of Indian business school librarians

	Value of Library?	Mean	SD	CoV
1	Increase in the research output of business school	1.50	0.53	33.88
2	Students perform better in the exams	2.88	1.20	43.27
3	Helps students in their placements	3.75	1.12	30.49
4	Helps faculty more than students	3.63	2.13	61.78
5	Helps students more than faculty	4.38	2.57	62.54
6	Helps faculty and students equally	3.25	2.45	81.65
7	Adds value to the overall academic culture of the institution	1.63	1.00	60.00
Future Challenges				
8	Reduced library budget	5.00	2.68	56.14
9	Management cooperation	4.50	2.45	56.53
10	Faculty underuse	3.63	2.00	60.00
11	Student underuse	2.75	1.74	68.09
12	Reduced library staff	2.75	1.86	66.81
13	Difficulty in recruiting good staff from the job market	2.88	2.83	84.85

Figure 5.1 shows that when the data collected on perceptions of Indian business school librarians is plotted as a bar chart, with value of library (column 1 of Table 5.3) on the x axis and the mean and SD values on the y axis, we can clearly see that value no. 7 (adds value to the overall academic culture of the institution) is rated highly with little variation.

In the section where responses were sought on whether the librarians considered calculation of ROI for libraries possible, most of them felt that it was difficult to measure ROI and stated the need for development of a model for ROI. Some of them indicated that partial measurement was possible with measurement of resource usage, user satisfaction and research output. This question and the response to it form a critical part of this study. It was in light of this perception that I propose a framework for calculating ROI in business school libraries.

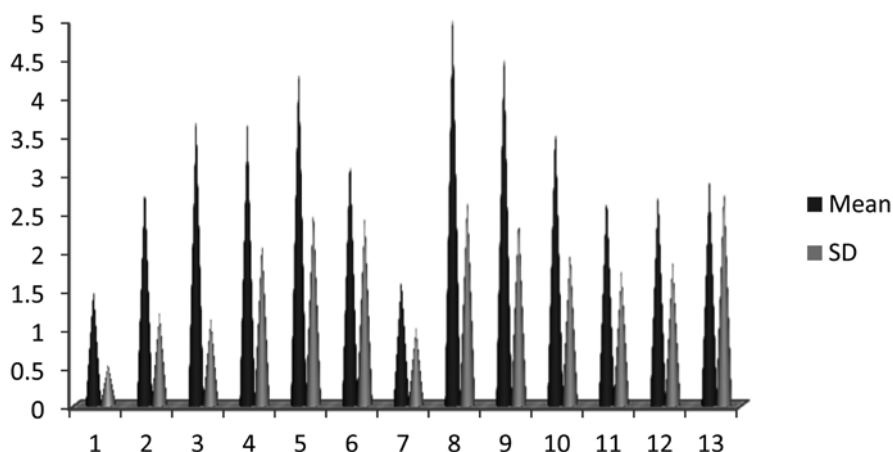


Figure 5.1 Perceptions of Indian business school librarians

In response to the question on the relevance of libraries in future, all librarians responded positively. Some suggested re-engineering their role and functions through personalized and relevant services and providing credible, validated and organized resource materials.

THE PROPOSED FRAMEWORK

It is quite evident from the literature review and the survey conducted that the need for calculating the ROI is pertinent. Existing models need to be further researched and evolved to address the needs of various libraries. Some may consider this increased interest on ROI as madness (Neal, 2011) and advise restraint. Different contexts and perspectives need to be explored, if we look at different types of libraries (public or academic). Even within one campus we may need to look at various groups of users differently. For instance, undergraduate students would use and derive value from a library that is quite different from a doctoral student within the same institution. In business schools, the needs vary with the users who may include participants of long-term, short-term or distance programmes and external users. So far as existing studies are concerned, there are hardly any that have an Indian context.

At the outset, one may attempt to look at ROI as a means to establish the fact that library value can be expressed in monetary terms. The fundamental premise of calculating ROI is that management has invested x amount in making the library operational and expects returns, if not directly in terms of money, in terms of impact or value generated that is then translated into the terminology of money.

The existing ROI studies on academic libraries have resorted to calculating either the financial value or the impact value. Financial value has been derived by simply dividing the monetary value of benefits by the monetary value of cost. This can also be termed as cost–benefit analysis. In the second approach, the library’s impact on its users is measured in terms of outcomes or benefits that may have been derived. A combination of calculating the financial values of cost and benefits and indentifying the library’s impact through a survey of perceptions may be useful.

The value of a library, on adopting a simple approach, would mean the benefits received against the cost incurred. In case of the cost incurred, the tangible part can easily be calculated, but there may be issues in calculating the intangible cost. Some intangible costs incurred include faculty and ‘other-than-library’ staff time in library governance, cost of the institution’s goodwill in procuring materials or dealing with external agencies and so on. The cost factor in a library (Hanumappa, 2011) would generally include:

- resource identification cost: identifying relevant resources
- resource procurement cost: purchase and acquisition
- resource maintenance cost: preservation and providing access
- resource management cost: creating systems to manage the resources
- resources needed to achieve all the above, including people, infrastructure, technology, institutional overheads and so on.

While library budgets in India typically provide cost details of resources to be procured, it is difficult to ascertain other costs through library budgets. Keeping this in mind, to review the cost incurred in operating a library it would be necessary to include direct costs and indirect costs. The direct costs will include the items listed in the library budget, such as cost of procuring the resources and technology needed to manage and provide access to these resources. One would also need to add the salaries of the staff, library maintenance, electricity consumed, institute overheads in supporting the library operations and other expenses incurred like tax, cost of real estate and so on. The indirect costs would include unnoticed costs such as costs incurred in managing external visitors to the library, cost of faculty time and administrators in facilitating library operations and so on. Therefore, ascertaining actual costs incurred on libraries is complex but very possible.

On the other hand, benefits or value derived from a library can be broadly categorized into two sections based on the users of the library:

1. internal users
2. external users

Internal users

The benefits of the library to internal users could be at two levels, institutional and individual. They are further elicited as follows.

Institutional level

At the institutional level the benefits may include:

- students' choice, retention, parents perception
- research and publication outcomes
- faculty choice, retention, satisfaction
- staff choice, retention, satisfaction
- brand-building – rankings, international partnerships, accreditation, placements, linkages to industry and public (academia, government, industry)
- savings accrued through purchases for the library through negotiation, sponsorship, identifying content overlap and avoiding collection duplication, consortia participation and ILL services.

Individual level

At the individual level each category of user may have different set of benefits and could be described as:

- faculty: publishing (cases, working papers, papers, research books, textbooks, conference proceedings, newspaper articles, teaching, research guides), faculty development, consulting, institution-building, invited talks, collaboration, promotion and so on
- students
 - MBA – grades, placements, learning: assignments (reports, summer course and so on), class discussions, peer learning, summer placements (remote logins), higher education, research and publication, entrepreneurship
 - doctoral: grades, research processes and understanding, publications, interaction with faculty, networking, teaching assistantship, higher education
 - executive education: learning, assignments, class discussions, peer interactions and so on
 - faculty development programmes: learning, teaching, research, publication, administration.
- research assistants/academic associates: support and assistance to faculty, publication, higher education, jobs
- interns: completion of projects, learning, impact in mainline of education
- academic visitors: research, teaching, publication, learning and administration
- staff: attracting and retaining specialized staff and their growth
 - computer professionals
 - library staff

- physical education staff
- other professional staff.

External users

The benefits derived by external users are also important for a library. In the Indian context, especially for the Indian institutes of management that were established by the Indian government, one of the objectives is to support similar Indian institutions and further the cause of businesses and also management education in the country. In this context, the external users who could benefit from the business school library are:

- corporate users
- PhD students
- faculty and researchers
- ‘only reading’ users: doctors, consultants, entrepreneurs and similar
- general public, including foreigners, architects, amongst others
- potential stakeholders such as students and faculty
- libraries that are active in our ILL programme
- academic institutional members
- management and decision-makers of other institutions
- alumni
- government.

It may be useful to note some of the possible outcomes in relation to the value a library derives by serving its external users:

1. connection to alumni, leading to facilitation in placements and raising endowments and sponsorships for the business school
2. improved position in international and national accreditation and rankings
3. alignment with the business school’s overall mission
4. intangible outcomes:
 - improved ambience to academic setting
 - improved visitor perceptions
 - user goodwill
 - promotion of entrepreneurship in the region
 - display of institute output, such as faculty publications, student reports and publications, news items on library noticeboard.

When we consider different categories of users it may be useful to look at the varying levels of importance of the library as perceived by each type of user. We may have to develop a model that looks at varying weightings for each type of user. For instance, a faculty may find use of library far more important and critical than a MBA student, and a doctoral student’s perception of the library’s value must be different from that

of an executive attending a short-duration programme at the business school. It may also be important to differentiate the value derived by a faculty while preparing a grant proposal versus teaching a course. And this could well be extended to use of the library by a faculty to prepare a session for a training programme versus a doctoral programme. Therefore, it would be too simplistic to not consider these complexities before assigning an overall value for library use.

The other complexity in calculating value or ROI of a library would be the types of use of the library by various categories of users. These may include:

1. walk-in and browsing
2. issue/return of library materials
3. referencing the resources in the library
4. self-study or group study of resources
5. use of computers and Internet
6. virtual or online use of library resources
7. discussion by students/faculty (for example, for class preparation, assignments and so on)
8. seeking individual guidance in using the library resources.

While researching on the value of libraries it may also be worth looking at the contribution of the library staff in activities beyond serving the immediate users and consider these when calculating the library's ROI. As an illustration, some of the initiatives and activities that my library is currently associated with are as follows:

- curriculum development, teaching courses, visiting lectures, talks/papers in conferences, selecting interns and trainees and so on for library and information science (LIS) schools
- publication of papers in national and international journals and presentation of papers and lectures in national and international conferences
- contributing to the library profession through the Ahmedabad Library Network and Management Library Network, and professional talks and meetings with LIS students
- contributing to LIS, architecture and design students' projects
- mentoring/guidance to start-ups in the domain of radio frequency identification, open source software, e-book reader software and publishers
- membership of the institute's staff evaluation and development committee, computer services committee, website committee, chair of staff grievances committee and staff welfare committee
- Organizing management conferences, contributing as a faculty in the management development programme – Innovating for Excellence (a programme for deans and directors of business schools) – designing and delivering a management development programme for publishers

- developing library orientation and information literacy sessions for students of various programmes – MBA, doctoral (internal and external) and faculty development (internal/external)
- contributing to the public cause through involvement in government initiatives like MJ Public Library, Sachivalay (government of Gujarat) Library, Sardar Patel Institute of Public Administration Library, Knowledge Consortium of Gujarat (government of Gujarat), organizing book fairs and founding member of the International Institute for Entrepreneurship.

These contributions by library staff could be considered as irrelevant as they were not planned for when the library was conceived. However, when looking at calculating a library's ROI, it will definitely be desirable to include all such known, unknown, direct, indirect, intended or unintended benefits to users, which may include internal and external benefits.

CONCLUSION

We may not have an agreed and mature model for calculating the ROI of a library, let alone the business library. However, contributions to the body of ROI literature are increasing, with an emphasis on ROI becoming inevitable for library professionals. It may be worth developing models that are relevant to various contexts. This chapter has attempted to elaborate the Indian situation in regard to business schools.

As seen from the survey of the perceptions of Indian business school librarians undertaken in this chapter, there is a great need to develop a model for calculating ROI, although most respondents felt that ROI is only partially measurable. Measuring resource use, satisfaction surveys and measuring research output in business schools were suggested as some of the approaches towards developing a model for calculating ROI. However, when calculating a library's ROI, it will definitely be desirable to include all known, unknown, direct, indirect, intended and unintended benefits to internal and external users.

Within these two categories – internal and external users – we may find many types of user, such as students, faculty, researchers and so on. For each type of user the need and benefit may be different and has to be factored into the ROI model that we build. In addition, for an internal user like a faculty member, their research paper may benefit from the reference resources subscribed to by the library, or from the faculty member just browsing the shelves when they walked into the library, or by borrowing a book. Similarly, if we look at students, it may become very important to look at the type of programme the student belongs to, their purpose in using the library and then the actual use made.

Hence, when calculating the returns of a library, one needs to consider assigning values to each type of use based on the user, purpose and use. In addition to use of the library by users, it may also be necessary to include outcomes of library staff engagements outside the primary domain of the library. Once the returns have been calculated it will be easier to calculate the ROI.

In conclusion, a business school library could use existing models of dividing the returns by cost incurred and project a ROI figure. But, to do this, one has to consider all costs (tangible and intangible) and all returns (tangible and intangible). In the process of calculating the returns, the individual library will have to assign values to the user, use and purpose, depending on the mission of the school or institute. More studies of this kind may help in the development of a standard model for calculating the ROI of a business school library in the future.

REFERENCES

- Aabo, S., 2009. Libraries and Return on Investment (ROI): A Meta-Analysis. *New Library World*, 110(7/8), 311–24.
- ACRL, 2010. The Value of Academic Libraries: A Comprehensive Research Review and Report [online]. Association of College and Research Libraries. At: <http://www.acrl.ala.org/value/> (accessed 7 August 2012).
- Brown, J., 2011. Developing a Library Value Indicator for a Disciplinary Population: Proceedings of the 3rd Annual Library Assessment Conference [online]. Association of Research Libraries. At: http://digitalcommons.library.unlv.edu/lib_articles/102 (accessed 7 August 2012).
- Cain, D. and Reynolds, G.L., 2006. The Impact of Facilities on Recruitment and Retention of Students. *Facilities Manager*, May–June, 54–60.
- Chadwell, F.A., 2011. Assessing the Value of Academic Library Consortia. *Journal of Library Administration*, 51(7–8), 645–61.
- Cornell University, 2013. Library Value Calculations [online]. At: <http://research.library.cornell.edu/value> (accessed 21 April 2013).
- Eakin, L. and Pomerantz, J., 2009. Virtual Reference, Real Money: Modeling Costs in Virtual Reference Services. *Libraries and the Academy*, 9(1), 133–64.
- EBSCO, 2013. At: <http://www.ebsco.com/> (accessed 20 April 2013).
- Fonseca, T., 2010. Speaking in the ROI-al We: On the Need to Create a Return-on-Investment Calculator for Academic Libraries of Community Colleges and Regional/Undergraduate Four-year Institutions. *Codex: The Journal of the Louisiana Chapter of the ACRL*, 1(2), 80–99.
- Grzeschik, K., (2010). Return on Investment (ROI) in German Libraries: The Berlin School of Library and Information Science and the University Library at the Humboldt University, Berlin – A Case Study. *The Bottom Line: Managing Library Finances*, 23(4), 141–201.

- Hanumappa, A.K., 2011. Return On Investment (ROI) from Libraries. In: Jagdish Arora et al. (eds), *Towards Building a Knowledge Society: Library as Catalyst for Knowledge Discovery and Management*. Proceedings of VIII International CALIBER. Ahmedabad: INFLIBNET, 479–88.
- Imholz, S. and Arns, J.W., 2007a. Worth Their Weight: An Assessment of the Evolving Field of Library Evaluation. *Public Library Quarterly*, 26(3–4), 31–48.
- Imholz, S. and Arns, J.W., 2007b. Worth their Weight: An Assessment of the Evolving Field of Library Valuation [online]. Americans for Libraries Council. At: <http://www.ala.org/research/sites/ala.org.research/files/content/librarystats/worththeirweight.pdf> (accessed 29 April 2013).
- Jackson, H.L. and Hahn, T.B., 2011. Serving Higher Education's Highest Goals: Assessment of the Academic Library as Place. *College & Research Libraries*, 72(5), 428–42.
- Kaufman, P.T., 2008. The Library as Strategic Investment: Results of the Illinois Return on Investment Study. *Liber Quarterly*, 18(3–4), 424–36.
- Luther, J., (2008). *University Investment in the Library: What's the Return? A Case Study at the University of Illinois at Urbana-Champaign* [online]. Library Connect, Elsevier. At: <http://libraryconnect.elsevier.com/sites/default/files/lcwp0101.pdf> (accessed 5 January 2012).
- McClure, C.R. et al., 2001. *Economic Benefits and Impacts from Public Libraries in the State of Florida* [online]. Information Use Management and Policy Institute. At: http://dlis.dos.state.fl.us/bld/Research_Office/final-report.pdf (accessed 5 January 2012).
- Mays, R., Tenopir C. and Kaufman, P., 2010. Lib-Value: Measuring Value and Return on Investment of Academic Libraries. *Research Library Issues: A Bi-monthly Report from ARL, CNI, and SPARC*, 271, 36–40.
- NCES Public Library Peer Comparison Tool. At: <http://nces.ed.gov/surveys/libraries/> (accessed 21 April 2013).
- Neal, J., 2011. Stop the Madness: The Insanity of ROI and the Need for New Qualitative Measures of Academic Library Success. In: *Declaration of Interdependence: The Proceedings of the ACRL 2011 Conference*. Philadelphia, PA: Association of College and Research Libraries.
- OCLC, 2003. *Environment Scan: Pattern Recognition*. [online]. Online Computer Library Center]. At: <http://www.oclc.org/reports/escan/toc.htm> (accessed: 12 April 2012).
- OCLC, 2005. *Perceptions of Libraries and Information Resources* [online]. Online Computer Library Center. At: <http://www.oclc.org/reports/2005perceptions.htm> (accessed 2 February 2012).
- OCLC, 2010. *Perceptions of Libraries: Context and Community* [online]. Online Computer Library Center. At: <http://www.oclc.org/reports/2010perceptions.htm> (accessed 12 April 2012).
- Sarnikar, S., 2010. Growth of Higher Education in India: Regulatory Complexity and Funding Policy Ambiguity. *The FedUni Journal of Higher Education*, 5(3), 7–23.

- Sidorko, P.E., 2010. Demonstrating ROI in the Library: The Holy Grail Search Continues. *Library Management*, 31(8–9), 645–53.
- Steffen, N. et al., 2009. *Public Libraries – A Wise Investment: A Return on Investment Study of Colorado Libraries*. Denver: Library Research Service.
- Stone, G., Pattern, D. and Ramsden, B., 2012. Library Impact Data Project: Hit, Miss or Maybe. In: *Proving Value in Challenging Times: Proceedings of the 9th Northumbria International Conference on Performance Measurement in Libraries and Information Services*. York: University of York.
- Strouse, R., 2003. Demonstrating Value and Return on Investment: The Ongoing Imperative. *Information Outlook*, 7(3), 14–19.
- Tenopir, C. et al., 2010. *University Investment in the Library, Phase II: An International Study of the Library's Value to the Grants Process* [online]. Library Connect, Elsevier. At: http://libraryconnect.elsevier.com/sites/default/files/2010-06-whitepaper-roi2_0.pdf (accessed 5 September 2012).
- ULC, 2007. *Making Cities Stronger: Public Library Contributions to Local Economic Development* [online]. Urban Libraries Council. At: http://www.urban.org/UploadedPDF/1001075_stronger_cities.pdf (accessed 10 January 2012).
- White, L.N., 2007. An Old Tool with Potential New Uses: Return on Investment. *The Bottom Line: Managing Library Finances*, 20(1), 5–9.

THE LIBRARY WORKFORCE



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COLUMN EDITOR'S NOTES

Let's face it, these days leading and managing a library workforce is a complex task, as many competing factors influence the values, behaviors, and culture of library workplaces. This feature column, written by Nosheen Fatima Warraich and Kanwai Ameen, focuses on academic libraries in Pakistan, as the workplace setting; but the research also has implication for the management of library human resources in other contexts and in other countries.

Reading this contribution caused me to think about the issues relating to human resource management in a broader global context. This article is a timely reminder that library workplaces are pretty much the same across the world—something I was reminded of recently when I spent some time at an academic library in Malaysia. Local context and issues are important in any consideration of library human resource challenges and opportunities with local factors (such as enterprise agreements, workforce composition, etc.) never far from the focus of library leaders. However, leaving aside local context, library workplaces are also impacted by global factors (including information and communications technologies, global economic conditions, etc.). More so than ever before, the challenges and opportunities playing out when it comes to leadership and management of library human resources, have many things in common. This feature column highlights this point well as it brings a nice mix of applied research and professional practice experience. Based on some large scale research, its findings may be helpful to library leaders in contexts beyond Pakistan.

I am pleased to feature this contribution to help highlight the global nature of our practice of professional skills in librarianship and the leadership of library human resources. As always, I invite contributions to the column on topics broadly addressing themes or issues for library workers throughout their career lifecycle. Please submit articles for this column to the editor at vicki.williamson@usask.ca. Please mark the subject line of your submission "IILR contribution."

Managing the Personnel in University Libraries: A Developing Country Perspective

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ABSTRACT

This research aimed to investigate the issues relating to personnel's management in university libraries of Pakistan. It specifically focused on recruitment, continuous professional development, performance evaluation, and maintenance of professional staff in university libraries. To meet the objectives of the study, a multi-method survey was conducted. Questionnaires and interview guides were used to collect data from heads of the university libraries ($N = 36$). Twenty interviews were also conducted with purposively selected senior professionals from 16 institutes. This article provides a selected summary of a study carried out to complete the PhD degree.

KEYWORDS

Continuous professional development; employee management; LIS professionals; performance appraisal; retention strategies; staffing; university libraries—Pakistan

Introduction

Effective utilization of skills, knowledge, and capabilities of personnel is the prime objective of a service organization regardless of its function and size. People change into human resources when they have talent, experience, and aptitude to effectively accomplish the task of an organization according to its mission and objectives. Sayings like "Our people are our most important assets" and "People, not buildings, make a company successful" are repeatedly used to recognize the importance of personnel for all kinds of organization.

The Higher Education Commission (HEC) of Pakistan was established in 2001 and formally known as

the University Grant Commission. HEC has developed a large set up with generous funding. This expansion of HEC positively affects the institutes of higher learning and their libraries. The emerging/prevaling research culture in academia has enhanced the role of libraries and information professionals. Competent and dynamic human resources are vital in providing modern, value-added services. Motivated and committed personnel add immense value to library services resulting in the enhanced research productivity by a university.

Managing the personnel in libraries has never been simple. The library managers spend most of their time in managing personnel rather than resolving financial



or technical issues (Evans & Alire, 2000). Modern library management has become very challenging and complex due to innovation, development of sophisticated technologies, higher expectations from information professionals, users' changing behavior, and the shrinking budgets. Evans and Alire (2000) emphasize the importance of personnel as follows, "money and things are comparatively easy to manage and predict than people." This area is comparatively new in Library and Information Science (LIS) academic programs and research literature.

Literature reveals the different facets of personnel management during the 1990s. Al-Hassan and Meadows (1994) conducted a study of library professionals by using these indicators to improve personnel management in libraries: recruitment, training, performance appraisal, and job satisfaction. This study is one of the earlier key studies conducted on personnel management in libraries. It is different for two reasons. Firstly, it used the interview technique to collect data. Secondly, it was a comparative study of the Gulf War region in 1990. It analyzed the status of library personnel in pre- and post-war Kuwait. Usherwood, Proctor, Bower, Stevens, and Coe (2000) conducted a baseline study on recruitment and retention in public libraries in the UK. It covered different aspects of personnel management, such as recruitment, training and development, retention, and leadership for public library professionals.

Roknuzzaman (2007) conducted a comprehensive study on status of human resource management in public sector university libraries in Bangladesh. This study played an important role in conceiving the present study for two reasons. First of all, Roknuzzaman (2007) selected the university libraries and their working professionals to explore the status of personnel; the second reason was the developing country status of Bangladesh, which shares certain cultural, socio-economic, and regional context with Pakistan. Though, libraries have been dealing with staff administration for centuries, yet, investigating the academic aspect of personnel management in libraries is quite a new trend in developing countries. Therefore, we found it important to investigate the status of personnel management in libraries in terms of staffing, training and development, performance appraisal, and retention strategies for a developing economy like Pakistan.

Changes in information landscape, combined with rapid advancements in Information and Communication Technology (ICT) and shrinking budget, has

made a library use its resources in a smart manner. It is no longer the one it used to be in the traditional environment, where performance used to be measured in terms of quantitative output, that is, number of books classified, number of queries answered, etc. Current trends demand personnel who are innovative and creative.

Libraries deal with information organization and managing its access, which requires hiring the best human capital to facilitate the clientele through meeting their information needs at the right time and in the right manner.

Objectives of the study

This study aimed to investigate the current situation of personnel management in libraries in the institute of higher learning in the Punjab, a province of Pakistan.

1. To assess the status of personnel management practices in terms of professionals' recruitment, training and development, performance evaluation, and maintenance policies in university libraries of Punjab Province.
2. To provide suggestions for effective personnel management in libraries.

Research design

This article is based on a PhD dissertation that used a multi-method research design. It used a survey method questionnaire and interviews. A self-administered postal questionnaire was used to collect quantitative data from chief librarians of all university libraries in the Punjab province. The questionnaire was sent to 36 libraries and, after two reminders, 32 responded with 92% response rate. This questionnaire was used to explore the personnel management issues. Then, 20 interviews were conducted with purposively selected senior professionals from academia who are actively engaged in library personnel decision making. SPSS 20.0 version was used for quantitative data analysis and content analysis for qualitative data.

Findings and discussion

Four internal indicators of personnel management, such as recruitment, training and development, performance evaluation, and maintenance policies of

employees, in university libraries are discussed in the following section.

Recruitment

Recruitment and selection of the right persons for the right jobs is the key component of personnel management. It is an important phenomenon in libraries that are known as labor-intensive organizations. Criteria of recruitment vary according to the requirement of the job. Data collected regarding recruitment in university libraries include: method to evaluate the professional candidates' suitability for recruitment, methods of publicizing the job availability among LIS professionals, satisfaction with the number of available professional staff, and satisfaction about staffing issues and number of more LIS professionals required to fulfill the information needs of target customers in University Libraries (ULs). The findings revealed that most of the libraries (28; 84.4%) used print media advertisement in (local or national) newspapers to publicize the job availability in their organizations/universities. Libraries commonly used more than one method for that purpose. Thirteen (39.4%) used web-based advertisement, that is, on their library or university's webpage along with print media advertisement. Twelve (36.6%) libraries used their staff referrals for new hiring. Referral is another preferred source because referees' "word of mouth" is seen as having a certain amount of reliability (Yang, 2007). But this method was not used in public sector universities due to the already set official hiring procedures. Eleven (33.3%) libraries used Listservs for this purpose besides other methods. Listservs are playing a significant role in the LIS community in Pakistan, especially in job searching for the entry-level positions. Listservs can easily attract maximum applicants and allowing managers to select the right employees. Eight (24.2%) libraries used internal search to hire the employees.

Recruitment and selection are particularly important because there are consequences for not selecting the right people from the beginning. In order to select the right people, various recruitment sources are utilized by ULs. Advertising in newspapers, Internet, referrals, and internal searches are the main sources to be used.

The findings discovered that libraries used more than one method to evaluate the candidates' suitability for selection. Most of the ULs (31; 93.9%) used

the interview method for that purpose followed by getting an application on prescribed form along with an interview (25; 75.8%). Ten (30.3%) libraries used a written test to hire LIS professionals, while nine (27.3%) libraries used a work-sampling method. This method had been opted in private sector universities because public sectors ULs do not have flexibility in rules and procedures to test the candidate's abilities in the real workplace before selection.

The respondents were asked to mention their satisfaction with the number of available professional staff. Only 12 (36.4%) libraries were satisfied with the number of available professional staff. A significant number of respondent libraries (21; 63.6%) were not satisfied with the quantity/number of available LIS professionals. These libraries were understaffed and needed more employees.

Number of available and filled seats for LIS professionals

The respondents were asked to mention the number of seats available for LIS professionals in their library. All libraries answered this question, and this data was compared with data regarding the number of professionals working in ULs (number of filled seats).

Overall, 197 seats were available in all 33 responding libraries. The number of filled seats was 155 (78.68%), and 42 (21.32%) seats were vacant. This fact shows that ULs in Pakistan were understaffed.

Number of professional employees needed

The respondents were further asked if they were not satisfied with the number of available staff, and how many employees were needed to provide better services to users. Twenty-one libraries provided the answer to this question (Table 1). A group-wise frequency distribution of the number of needed professional employees has been presented in Table 1.

Two (9.52%) libraries needed one more professional employee. The majority of libraries (14; 66.67%)

Table 1. Professional employees needed in ULs (*N* = 21).

Professional employees needed	Frequency	Percent
One professional	2	9.52
Between 2–4	14	66.67
Between 5–8	4	19.04
More than 8	1	4.76
Total	21	

needed two to four professional employees. Four (19.04%) libraries needed five to eight, and one library (4.76%) required eight professional employees to fulfill the users' information needs.

Training and development

Training and professional development is vital in libraries due to rapid change on information landscape. Data shows that 18 (54.5%) libraries conducted workshops or seminars during last year, while 15 (45.5%) libraries conducted no training workshop in this period. The 18 respondent libraries were further asked to mention the sources of collaboration in organizing the workshops. Fifteen (83.33%) libraries organized workshops with the collaboration of HEC and 11 (61.11%) libraries organized these activities independently. HEC organized many training workshops to create awareness to its subscribed e-sources as part of the National Digital Library Program. Seven (38.88%) libraries organized such training and development programs with the help of university authorities or its other departments.

The respondents were asked to provide information regarding the types of Human Resource Development (HRD) programs supported by their libraries. Almost half (16; 48.5%) of the libraries supported IT orientation. It shows the importance and escalating use of IT skills in university libraries. In Pakistan, IT orientation is used to train LIS professionals to automate the library and provide digital services to users.

The libraries were further inquired to mention their percentage of satisfaction with available HRD programs; 32 libraries answered this question. Data shows that 14 (43.8%) libraries were up to only 40% satisfied. Half of the libraries (16; 50.0%) had satisfaction between 41% and 90% satisfied. Only two (6.1%) had more than a 90% level of satisfaction.

The following methods were used to encourage LIS professionals to participate in training and development programs: 10 (43.47%) libraries paid all expenses of Continuous Professional Development (CPD) programs and six (26.08%) libraries endorsed the paid study leave to encourage the LIS professional to participate in CPD programs, followed by three (13.04%) libraries that promoted their employees. Only one library (4.35%) increased the salary of their employees on the basis of these professional developments.

Performance appraisal

The most challenging job for a manager is to achieve and maintain the high performance of employees. It needs to evaluate staff performance to ensure that their skills are properly utilized to enhance productivity. The respondents were asked if they had any culture of systematic performance appraisal in their libraries. Twenty-seven (81.8%) libraries had the performance appraisal system, while the remaining six (18.2%) libraries did not mention any such practice.

Method(s) to assess the staff performance

The libraries were further asked to provide information about the methods to assess the performance of LIS professionals; 27 responded to this question. The remaining six did not due to the absence of any such system. Twenty-six (96.3%) libraries used the annual confidential report (ACR), along with other methods for performance appraisal. It was the most commonly used method in public and private sector ULs. The second used method was multi-person comparison, used by seven (25.9%) libraries. Multi-person comparison is a performance appraisal technique that compares one individual's performance with that of one or more other individuals.

Three libraries (11.1%) used the "Graphic Rating Scale" (a technique in which an employee is rated on a set of performance criteria) to evaluate their employees, along with other performance appraisal techniques. Only one (3.7%) library used the 360-degree method (a technique in which supervisors, colleagues, subordinates, and customers evaluate the individual).

The respondent libraries were asked to mention the use of the data gathered in the result of performance appraisal process. The respondents were allowed to tick more than one option. A significant number (18; 54.5%) of libraries used it for the promotion of their employees.

It is interesting to point out that 12 (36.4%) libraries would make no use of data and it was just a formality. Ten (30.3%) libraries used this data to determine the raise in salary of their employees, whereas seven (21.2%) libraries used it to decide the training needs of professionals and convert their weaknesses into strengths.

Retention strategies of university librarians

Considering the factor of brain drain in Pakistan, the respondents were asked to give suggestions for retaining the outstanding professionals during the interviews.

Thirteen respondents concurred that opportunities for CPD and career development contribute a lot to retain LIS professionals, while 12 respondents were of the view that attractive and competitive salary packages are important as a strategy.

Ten respondents suggested that optimal job conditions were important to retain professionals in ULs, while eight had the opinion that there should be flexible service structure for professionals in university libraries. Seven respondents suggested that retirement benefits were imperative to retain competent professionals, and two were of the view that professionals' emotional bond to an organization also plays an important role in retaining them.

Respondents emphasized the importance of HRD programs in career development and retention of LIS professionals. Moyo (1996) commented, "the availability of staff training and career opportunities should be regarded as an integral part of retention strategy. It should be ongoing and must be incorporated into the human resources budget." The continuous professional training can help retain staff and increase their commitment and loyalty. One respondent suggested that there should be grants to attend conferences and training programs for LIS professionals, as there are for the faculty. Such learning opportunities motivate them to update their knowledge, while at the same time affirming their loyalty to the organization.

The low salary packages have led the professionals to search for better jobs in other organizations. There were a number of ULs professional with attractive job titles like chief-librarian and library-officer (especially in small size private sector ULs) but their salary was low and they were dissatisfied.

Table 2. Retention strategies for LIS professionals in university libraries ($N = 15$).

Retention strategies	Frequency
Opportunities for CPD	13
Competitive salary packages	12
Best work environment and job condition	10
Self-respect	9
Better service structure and its implementation	8
Retirement benefits	7
Innovative environment	2
Emotional bond of employee with organization	2

There were limited promotion opportunities on higher posts available within their organization as the higher positions, such as chief librarian, are filled on open competition and not only on the basis of seniority from within the libraries. The currently working professionals (in some ULs) do not have the required set of skills due to less availability of CPD opportunities and want to be promoted merely on seniority basis. A few public sector universities have approved the service structure from basic pay scale (BPS) 17 to BPS 20 with some variations.

Furthermore, even this service structure would not implement in its true spirit due to various reasons. This phenomenon creates unrest and dissatisfaction among professionals and they feel stagnant.

Half of the respondents pointed out the importance of retirement benefits in retaining the professionals. Quantitative data showed that 72.7% of the libraries offer retirement benefits to their employees. Senior professionals were more inclined to retirement benefits; they believed in Confucianism (the concept of lifetime employment), and it made them feel future security. The quantitative analysis of data for this study shows that 18% of employees in public sector universities had more than 20 years of experience on their current jobs. Whereas, responding private sector libraries had no employees with more than 20 years of experience. This fact reaffirms Confucian philosophy, where employees remain loyal to an organization and remain employed until retirement, as more prevalent among employees of public sector organizations of Pakistan. It also affects HRM practices in ULs regarding recruitment and selection, remuneration, and management style.

Conclusion

By exploring the personnel management issues in the context of university libraries in the Punjab province, the authors brought into light the practical implications for HEC of Pakistan, university authorities, and library leaders. Furthermore, it provides the basis for comparative studies to investigate different personnel management issues in various types of libraries. Libraries are understaffed and there is a need for more professional and non-professional staff. The study found that a number of professional positions are vacant, and there is also need to create more seats to provide desired services and meet the demands of



the users in a growing research culture. The library directors face difficulty in introducing new services with the existing staff. Libraries face problems in getting the appropriate caliber professional staff due to low salary packages, non-conducive work environments, and scarcity of competent professionals. The majority of libraries used print and Web-based advertisement to publicize recent professional positions. Library staff referrals were also in use at some private sector ULs. Interviews and application forms were commonly used to evaluate candidates' suitability for the recruitment. ACR is the most commonly used method for performance appraisal and the promotions of LIS professionals. There is a lack of training and development and research activities among LIS professionals. Only a few libraries from the private sector had a separate budget for staff development. Confucian philosophy, where employees remain loyal to an organization and remain employed until retirement, is prevailing in public sector university libraries. They don't like to change jobs and want to retain with one organization. The suggested retention strategies for LIS professionals are: opportunities for CPD, competitive salary packages, best work environments and job conditions, and self-respect.

Recommendation

On the basis of the findings of the study, the following recommendations can be made:

1. The training and development of the professionals should be on a regular basis to improve the current situation.
2. Professionals should be made satisfied with employee friendly policies, good salary packages, and career development opportunities to serve the users wholeheartedly.
3. Funds should be designated for staff development, as innovative services can't be delivered without competent and trained staff.
4. The LIS schools should design training and development programs for their alumni, particularly university librarians.

5. University authorities should offer better salary packages and career growth tracks to hire and retain competent professionals.
6. Professionals should take the initiative to learn the ICT skills themselves to survive in the competitive job market.

Future studies

This article provides a selected summary of a study carried out to complete the PhD degree. It covers the overall status of LIS personnel management in ULs. It recommends the following areas for further research in future:

1. This kind of research should be conducted for para-professional library personnel to explore their staffing and other management issues.
2. Comparative in-depth case studies should be conducted in different public and private sector universities to explore the personnel management issues in their libraries.

References

- Al-Hassan, S., & Meadows, A. J. (1994). Improving library personnel management: A case study of Kuwait. *Library Management*, 15(1), 19–25.
- Evans, G. E., & Alire, C. (2000). *Management basics for information professionals*. London, England: Neal-Schuman Publishers, Inc.
- Moyo, L. M. (1996). Library staff retention strategies in the face of accelerated turnover: University of Zimbabwe case. *International Information & Library Review*, 28(1), 105–119.
- Roknuzzaman, M. (2007). Status of human resource management in public university libraries in Bangladesh. *International Information and Library Review*, 39, 52–61.
- Usherwood, B., Proctor, R., Bower, G., Stevens, T., & Coe, C. (2000). Recruitment and retention in the public library: A baseline study. *Library Management*, 21(2), 62–80.
- Warraich, N. F. (2011). *Human resource management in university libraries of Punjab* (Unpublished PhD dissertation). University of the Punjab, Lahore, Pakistan.
- Yao, H. O. (2007). *Human resource management (HRM) in the hotel industry in Taiwan*. (PhD dissertation). Swinburne University of Technology, Melbourne, Australia. P. 166. Retrieved from <http://hdl.handle.net/1959.3/38791>

Finding Common Ground: An Analysis of Librarians' Expressed Attitudes Towards Faculty

Lisa M. Given
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SUMMARY. Information literacy listservs provide opportunities to discuss a range of instruction-related issues. One common theme is librarian-faculty relationships, including positive interactions and complaints. Content analysis is used to investigate librarians' discussions of faculty in BI-L/ILI-L postings from 1995 to 2002. By isolating and anonymizing postings reflecting librarian-faculty relationships and examining these through the authors' experiences as trained librarians and full-time faculty, the paper explores: (1) how librarians frame faculty relationships; and (2) librarians' perceptions of faculty attitudes. The paper concludes with suggestions for transcending unsatisfactory

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experiences with faculty to forge relationships that benefit those individuals both groups must reach—students. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2005 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. Information literacy, content analysis, librarians' perceptions, listservs

INTRODUCTION

At universities and colleges, librarians and teaching faculty are increasingly working together to offer students support in building strong academic information literacy (IL) skills. However, forging and maintaining strong working relationships between faculty and librarians is no easy task. Misperceptions about different work roles, as well as misinterpretations of personal motivations related to IL instruction, can hinder the development of productive collaboration. By examining and reassessing beliefs about one another, faculty members and librarians can develop strategies for finding common ground in the instructional environment.

LITERATURE REVIEW

There is an extensive body of literature in library and information studies (LIS) that examines trends in information literacy education. Librarians and LIS scholars have examined professional and theoretical issues involved in guiding individuals in the use of information resources, the design of successful library research projects, and the development of information strategies for lifelong learning. Approaches in the literature address a number of contexts—from public to academic libraries, as well as corporate and other special information centers—and focus on the full range of activities that comprise information literacy instruction (e.g., library tours; database searching sessions; critical evaluations of Web resources). Many of these have been written with the specific goal of sharing IL successes in order to guide others in the development of new programs, in the assessment and revision of existing sessions, in the use of technology, or in the management of other incidental instructional components (e.g., Bodi 1990; Drueke 1992). Many

professional and scholarly articles also explore the importance of having key outsiders “buy-in” to the importance of information literacy instruction as one core component to the success of these endeavors (cf. Julien 2000; Julien and Boon 2002). Many articles that address the academic context, in particular, regularly identify the support of teaching faculty as a vital component of successful IL initiatives. Before examining librarian’s expressed attitudes and experiences with faculty, it is important to first understand the practical and theoretical contexts surrounding this issue.

Faculty and Librarians’ Roles in Information Literacy—A Clear Divide

One of the most prevalent themes discussed in the IL literature is that of the experiential separation between faculty members and academic librarians. Although both groups are engaged, at one level, in pursuing the shared goal of educating undergraduate and graduate students, there are many points of difference that affect the faculty-librarian relationship. Numerous articles portray reference librarians’ professional goals (i.e., aiding and teaching students in the effective use of information resources) as being at odds with faculty members’ research, teaching, and service work. In these discussions, librarians are placed in a supporting role on campus, as individuals whose primary purpose is to offer support for learning activities, particularly, undergraduate students’ information needs (e.g., Farber 1999; Hanson 1993).

At the same time, faculty members are portrayed as sitting outside—yet connected to—the daily activities of the academic library. Here, faculty are discussed primarily in their roles as teachers who set curricula for their students (and by extension, influence librarians’ work in supporting students’ needs). Hardesty (1999), for example, identifies faculty as “the most important group, outside of librarians, who need to understand and appreciate the educational role of the academic library” (243). However, he notes that a major point of conflict is a faculty culture that privileges research, content and specialization, while undervaluing teaching, process and undergraduate students (244). Hardesty marks faculty members’ resistance to building library instruction into their classes as a natural reaction to living under constant time constraints, spending “most of their day doing something for which they have little formal training—teaching” (244), and having a limited exposure to librarians’ skills and expertise due to inadequate library support during their own undergraduate or graduate study. While Hardesty

(1999) makes clear that faculty members' actions (or inactions) concerning the library arise more out of ignorance than malevolence (244), other authors are less forgiving, and judge faculty members' inattention to IL as a competition that must be tamed, turf that must be claimed, or as a battle to be won (e.g., Chiste, Glover, and Westwood 2000; Snively and Cooper 1997).

Other studies of faculty members' attitudes toward the library (and IL, in particular) provide additional context concerning faculty members' perceptions (e.g., Cannon 1994; Gonzales 2001; Leckie 1996; Leckie and Fullerton 1999). In an opinion piece entitled "What I want in a librarian: One new faculty member's perspective," Stahl (1997) puts a very personal face on the issue, noting that faculty members want: proactive involvement from librarians—tempered with an acute sense of when to back off; clear communication about the limitations of librarian support for research activities; to be asked for input on library collection development; and, information on new and useful resources within the library. In a companion piece to this work (entitled "What I want in a faculty member: A reference librarian's perspective"), Larson (1998) compiles her own list of wants and needs: faculty recognition that librarians are in the same business of serving students' needs; clear communication with librarians about what is going on in a course; a basic familiarity with the literature and research tools in the faculty members' field; and, involvement of librarians in the design of course assignments, so that they match available library resources. These two works show, in a very personal fashion, the complex issues and emotions surrounding faculty-librarian working relationships.

Librarians as Advocates for Collaboration with Faculty

Many authors implore librarians to forge stronger, more effective working relationships with faculty, and collaboration in IL instruction is one of the most prevalent solutions offered in the LIS literature. Carlson and Miller (1984), for example, note that involving faculty members in library instruction not only allows librarians to be active participants in the library (beyond simple caretakers of the collection), but "the nature of the courses themselves may change, with more emphasis placed on independent library investigation as an integral part of the course" (484). Much of the current literature advocates this integrated model of faculty-librarian working relationships, and points to the development of formal IL courses and programs within established academic curric-

ula as ideal ways to meet students' needs with full faculty support (e.g., Eliot 1989; Stein and Lamb 1998).

While there are numerous benefits to be gained from collaborative partnerships, many authors also point to the pitfalls of poor relationships—particularly in light of existing problems that must be overcome in order to build effective IL programs. And, as many authors note, the onus is frequently on the librarian to create collaborative partnerships (e.g., Bruce 2001; Chiste, Glover, and Westwood 2000). Some authors see this role as one of faculty development, of teaching faculty about the importance of building the library into courses or assignments, and seeing beyond the library's collections to what librarians can offer students. Cardwell (2001), for example, notes that faculty members often create "problematic" assignments when partnerships with librarians are limited or non-existent; where faculty members fail to take the institution's resources into account when designing assignments, students are left to flounder as they attempt to complete assigned work (258). By forging relationships with faculty—by connecting with them at the reference desk, or conducting one-on-one consultations regarding IL strategies appropriate to their classroom needs—many authors point to the benefits that can be made in the development of IL programs, and in serving students' needs (e.g., Carlson and Miller 1984; Hardesty 1999; Iannuzzi 1998; Ren 2000; Winner 1998).

METHODS

Cardwell (2001) advises librarians to "Subscribe to BI-L [ILI-L], or search its archives . . . An active listserv, BI-L[ILI-L] hosts informative discussions on all types of instruction issues. You will learn about programs, successful and unsuccessful, that have been implemented at other institutions. It is also a place for posting questions and joining in on current discussions" (262). It is the prominence of this listserv among IL professionals that prompted it to be selected as the primary source of data for this study. With approval from the moderator, the archives of the listserv were analyzed using a qualitative content analysis method, for postings that related to librarians' relationships with university and college-level faculty members. The seven-year period from September 1995 to December 2002 was included in the analysis. During that time, in May 2002, the listserv changed its name to ILI-L (reflecting the "information literacy" terminology), and got a new moderator. All the postings to the listserv for the period in question were

read, those that related to librarian-faculty relationships were separated out, and then these were inductively coded for apparent themes. To ensure trustworthiness, the qualitative analyses were conducted by two research assistants, and the authors. In addition, the number of postings relating to each major theme were summed to identify broad trends in posting patterns. In the sections that follow, the term “librarian” is used to refer to posters of messages on the listserv; these posters self-identified as having active roles in the development of IL programs and/or the implementation of instructional activities within their libraries.

RESULTS AND DISCUSSION

Quantitative Analyses

Prior to completing qualitative analyses of the postings to BI-L/ILI-L, some quantitative analysis was done to assess the relative interest in particular themes over the seven-year period. Postings marked as relevant to the faculty-librarian relationship theme were totaled by yearly quarter (i.e., January to March, April to June, July to September, October to December). Postings relating to perceptions of faculty (including their personalities, competencies, and roles) were by far the most common, with an average of 28.4 postings per quarter. Postings about librarians themselves were the next most prevalent, with 18.9 postings per quarter. Finally, postings that focused on librarians’ beliefs about faculties’ perceptions of librarians averaged 4.2 per quarter. These trends held for every quarterly period. Figure 1 shows these trends, and demonstrates that postings were greater in number between October and December in all years, possibly reflecting peak periods of instructional activity for librarians subscribed to the list.

Appropriate Roles for Faculty Members–Librarians’ Perspectives

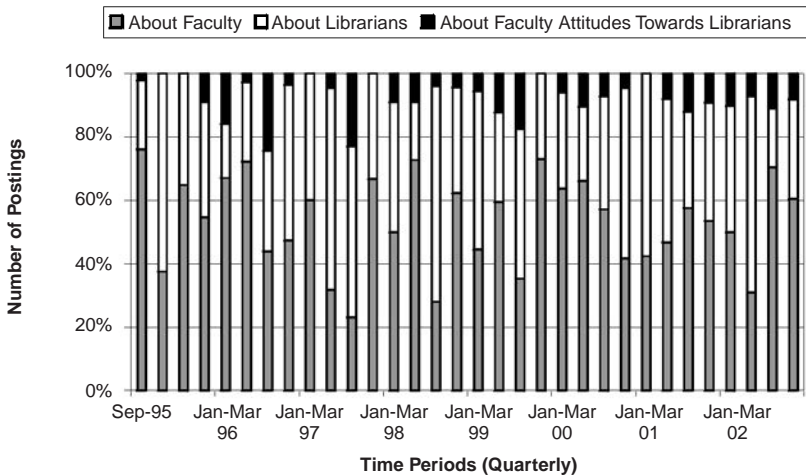
Listserv posters expressed a range of expectations for teaching faculty, from grading library instruction assignments, to dealing with plagiarism, to actively promoting information literacy initiatives. In general, librarians expressed a number of expectations concerning faculty members’ roles in information literacy instruction, including:

- Faculty should take on large (even primary) roles in IL instruction;

- Faculty should know library resources, understand the structure of the library and its services, be familiar with library jargon—and be able to teach these things to their students;
- Faculty should prepare feasible assignments that develop basic library skills, foster lifelong learning, provide students with variety, and teach critical thinking; in addition, faculty should teach students such specific skills as: computer literacy; ways to avoid plagiarism; how to distinguish between scholarly and popular journals; and, copyright.

At the same time, several posters recognized that librarians might also learn from the faculty members' wealth of teaching experiences, and apply this knowledge to their own IL instructional strategies; one poster, for example, noted: "... we don't get a full sense of what course instructors are up against—the depths of confusion, the short cuts students take, the dynamics of a class as a community. Teaching a course helps us figure those things out and it can really help those students that take it." However, many librarians were adamant in their feelings that within the library, librarians should be in control; for instance, posters seem to agree that library spaces (such as classrooms) should be controlled by the library, not by individual faculty members.

FIGURE 1. Number of Postings Per Category



Librarians' Relationships with Faculty Members

Posters also described a variety of efforts to work with faculty, including developing workshops, and liaising with specific departments. However, as one poster noted, “integration and collaboration [with faculty] are slow, painstaking, and include the slippery terrain of being ‘polite.’” Some concern was expressed about how faculty conduct themselves during classroom instructional sessions (e.g., marking papers or reading while librarians were speaking; going away to conferences when instructional sessions are scheduled), articulating a theme of “faculty as delinquent children.” For example, one poster stated: “the next year she pulled the same thing,” as though faculty are trying to “get away” with some sort of bad behavior when they are absent from or complete other work during instructional sessions. Again, these attitudes are not universal, and some comments indicated that librarians at some institutions have experienced consideration from faculty, who typically give them plenty of notice for instructional sessions.

Faculty Members' Attitudes and Competencies— What Librarians Have to Say

One other significant theme on the listserv focused on posters' understandings of faculty members' personalities. Overall, the image constructed was negative. Teaching faculty were represented as:

- possessive and territorial about their class time, course credits, and “their” students;
- inflexible (i.e., not accepting of any course that is not created or taught by themselves);
- rude, “touchy,” and generally uncooperative;
- emotionally detached from the teaching role;
- in a “rut” or needing “renewal” in their approaches to classroom activities.

One frequent complaint expressed on the list was that faculty “lack vision” by not understanding that library instruction may require more than one 50-minute session. Various posters suggested that librarians should expect “trouble” from teaching faculty, that some faculty have “inappropriate” or “bad” attitudes, that librarians should expect their requests to be ignored (or “blown off”), and that some faculty need to be

“frightened” into “compliance” (by pointing out that familiar library resources are changing or being eliminated). Listserv subscribers were warned not to let themselves be “pushed around” by faculty, so as not to drain librarians’ “emotional survival bank.” Some posters noted that teaching faculty need to be “tricked” into paying attention to the library, by being cajoled with food and a low pressure environment. Although there were some allowances made for younger faculty, who were characterized as being eager to make a good impression and happy for help with instruction, some posters interpreted this enthusiasm as “laziness,” or a sure sign of an instructor trying to “get out of teaching” by letting a librarian run the class. Implicit in these examples is the notion that librarians are dedicated, caring individuals, who continually strive to meet students’ needs—despite their frustrations with faculty members’ questionable attitudes.

While the vast majority of postings were quite negative in their assessments of faculty members’ attitudes, some posters were much more generous in their judgments; positive descriptions referred to faculty members as:

- “reasonable” and “understanding” in terms of IL initiatives;
- having useful knowledge—including expertise regarding students’ class-based resource choices;
- in need of a “break”—due to time constraints, research demands and institutional obligations;
- “grateful” for instruction;
- working on a consensus model of decision-making (which can be, at times, at odds with librarians’ expectations for quick decisions relating to IL instruction).

One poster suggested that faculty ought to be treated with “care” as any colleague deserves. Although the majority of postings provide negative accounts of faculty-librarian interactions, the minority voices that contradict those images provide a hopeful tone to the discussion; that, in better understanding faculty members’ work roles and obligations, librarians may be able to push beyond feelings of frustration and outrage, to find a common ground that will fulfill the goals of most IL programs.

Perceptions of Faculty Members’ Opinions of Librarians and Their Work

The listserv postings were filled with assertions about the ways that teaching faculty view librarians and their work. While several posters

stated that some teaching faculty are supportive of their library and its goals, most of the perceptions on the part of librarians were less than positive. Many librarians felt that faculty members:

- do not understand librarians' work;
- do not appreciate that librarians often cannot provide instruction on an ad hoc basis, as students need it and wander into the library;
- do not see the intellectual content associated with library instruction;
- view library instruction as only tangential to class content;
- see library use as a set of mechanical skills, requiring only average intelligence to master;
- discount the term "information literacy" as ambiguous, or simply library jargon;
- do not respect librarians.

One poster noted that faculty members view the library as an "obstacle which must be dealt with as quickly and painlessly as possible." Related to this perspective was the point that, "Most faculty seem to view the library as an infrastructural resource and not [as] a learning resource." The bottom line seems to be the perception that faculty do not understand librarians as librarians understand themselves.

How Do Librarians See Themselves?

At the heart of this issue, then, one question remains: How do librarians see themselves in relation to the faculty members on campus? Some posters to the listserv clearly perceived themselves to be full-fledged faculty. Indeed, given the postings that appear on BI-L/ILI-L, it appears that many librarians appreciate being introduced to students as "Professor." By situating themselves as faculty, librarians perceive that they are able to gain credibility in the eyes of students. As one librarian noted: "I NEVER use the word 'serve' when describing what librarians do. I always say 'support' the faculty or the curriculum or student research needs. We facilitate, assist, co-teach, but we do not 'serve' the faculty." While this attitude is clearly empowering for librarians, particularly when trying to connect with students and gain legitimacy in the role of teacher, this approach also (even if unintentionally) places faculty as lesser on the meritorious rungs that define their academic work. Faculty members, for example, typically engage in research and service activities—in addition to their teaching responsibilities—and generally hold

doctorate degrees in their areas of specialty. To be equated with librarians, who may not do any research, and who typically hold master's-level degrees, many faculty may rebel and further strive to define themselves as very different from the librarians on campus. By attempting to gain legitimacy by placing themselves as equals, librarians run the risk of further distancing those faculty with whom they need to connect.

Quite a number of criticisms were leveled at librarians by their own colleagues; the result is a clear indication of the complexity of librarians' feelings concerning their relationships with faculty. Some posters expressed frustration with peers who:

- do not want to expand their instructional activities beyond the "traditional";
- are afraid to say no or offend, preferring instead to stick with their perceived public roles as "nice people";
- are unmotivated (often due to feelings of "overwork and techno-stress");
- believe that others see them as on the verge of "extinction" or as "second-class citizens."

Although one poster noted: "The real enemy is in our ranks," another was quick to say: "if we constantly cater to faculty, do things on short notice, etc., then we are complicit in devaluing our own time and efforts." Another stated, "We librarians, along with our colleague professors have failed to instill in our students the joy of real research. We've made the whole process look so stuffy and difficult, or else we've provided so little real help in our one-shot sessions."

There were several points of debate, demonstrating a lack of consensus among librarians about some of these issues. For example, some posters were more sanguine about their status on campus: "We reference/instruction librarians are all handmaidens to the research process, and the term is neither offensive nor pejorative. I have no problem in considering myself a handmaid, or handmaiden, to the teaching faculty. We perform a service, a necessary service, for them; but we aren't their peers even though we may have faculty rank or status." Debate was also evident about whether librarians should train faculty to train students, or train students directly. Additional discussion focused on whether librarians ought to be teaching "computing" literacy, especially word processing.

CONCLUSIONS

The berating of faculty for not being intuitively information literate, or for not taking the time to become information literate is a puzzling attitude—particularly given librarians’ professed mandate to guide users and provide instruction in the use of information resources. However, this attitude may also hold the key to understanding the limitations—and complexities—of the librarian-faculty relationship debate. Both explicitly, and by implication of the expressed attitudes explored here, many librarians on the BI-L/ILI-L list made clear that they generally do not consider faculty members to be their clients—only those faculty members’ students. The images of troublesome, arrogant faculty, who have little understanding of librarians’ roles, point to a problem at the core of the relationship issue: that until librarians embrace faculty as clients themselves, deserving of the same level of respect and support afforded undergraduate and graduate students, IL librarians may continue to fight an uphill battle to bring faculty members onside.

By recognizing that faculty members and librarians are masters of their own (separate, but related) spheres, librarians may make strides in forging respectful and productive working relationships. As well, there are a number of concrete changes that librarians can embrace:

- Try not to presume arrogance, bad intentions, or disrespect on the part of faculty—they are people, just like librarians (or students, or other library clients), and all will have very different attitudes towards librarians and the library;
- Try not to presume that faculty are not committed to IL—or willing to open their classrooms to librarians; they may balk, at first—due to other time constraints or worries about competing institutional agendas—but this does not mean that they are not willing to be involved;
- Try to gain faculty members’ trust, by expressing an understanding of their busy lives; offer to provide help with their research or service work, as one way to gain access to their classrooms;
- Recognize that many faculty did not have the benefit of formal library instruction during their own education and have learned to access the world of information in ways that may appear inefficient and ineffective; over the years they have designed personal library-searching systems that work for them—so try to be patient in guiding faculty members in their use of resources, and be proactive in terms of instructional outreach;

- Treat faculty as clients of the library—offer to hold instruction sessions for their research assistants, or offer to set up monthly journal alerts.

All of these suggestions attempt to address a core issue, implicit in the postings examined in this study—respect. Librarians clearly desire it, and faculty members are no different. In order for librarians and faculty to work collaboratively in IL programs, both sides need to find a common ground—ways to speak to one another as colleagues, and also as clients-helpers. If librarians can lay the groundwork for building engaging, productive relationships with faculty by first connecting with them in their roles as researchers—the teaching role will soon follow.

REFERENCES

- Bodi, Sonia. 1990. Teaching effectiveness and bibliographic instruction: The relevance of learning styles. *College and Research Libraries* 51, no. 2: 113-119.
- Bruce, Christine. 2001. Faculty-librarian partnerships in Australian higher education: Critical dimensions. *Reference Services Review* 29, no. 2: 106-115.
- Cannon, Anita. 1994. Faculty survey on library research instruction. *Research Quarterly* 33, no. 4: 524-541.
- Cardwell, Catherine. 2001. Faculty: An essential resource for reference librarians. *The Reference Librarian* 73: 253-263.
- Carlson, David, & Ruth H. Miller. 1984. Librarians and teaching faculty: Partners in bibliographic instruction. *College and Research Libraries* 45: 483-491.
- Chiste, Katherine Beaty, Andrea Glover, and Glenna Westwood. 2000. Infiltration and entrenchment: Capturing and securing information literacy territory in academe. *The Journal of Academic Librarianship* 26, no. 3: 202-208.
- Drueke, Jeanetta. 1992. Active learning in the university library instruction classroom. *Research Strategies* 10, no. 2: 77-83.
- Eliot, Paula. 1989. The view from square one: Librarian and teaching faculty collaboration on a new interdisciplinary course in world civilizations. *The Reference Librarian* 24: 87-99.
- Farber, Evan. 1999. Faculty-librarian cooperation: A personal retrospective. *Reference Services Review* 27, no. 3: 229-234.
- Gonzales, Rhonda. 2001. Opinions and experiences of university faculty regarding library research instruction: Results of a Web-based survey at the University of Southern Colorado. *Library and Information Science Research* 18: 191-201.
- Hanson, Michelle. 1993. The library as laboratory for interdisciplinary studies. *Teaching English in the Two-Year College* 21: 222-228.
- Hardesty, Larry. 1999. Reflections on 25 years of library instruction: Have we made progress? *Reference Services Review* 27, no. 3: 242-246.

Relationships Between Teaching Faculty and Teaching Librarians

- Iannuzzi, Patricia. 1998. Faculty development and information literacy: Establishing campus partnerships. *Reference Services Review* 26, no. 3/4: 97-102.
- Julien, Heidi. 2000. Information literacy instruction in Canadian academic libraries: Longitudinal trends and international comparisons. *College and Research Libraries* 61, no. 6: 510-523.
- Julien, Heidi, and Stuart Boon. 2002. From the front line: Information literacy instruction in Canadian academic libraries. *Reference Services Review* 30, no. 2: 143-149.
- Larson, Christine M. 1998. "What I want in a faculty member": A reference librarian's perspective. *Reference and User Services Quarterly* 37, no. 3: 259-261.
- Leckie, Gloria J. 1996. Desperately seeking citations: Uncovering faculty assumptions about the undergraduate research process. *The Journal of Academic Librarianship* 22, no. 3: 201-208.
- Leckie, Gloria J., and Anne Fullerton. 1999. Information literacy in science and engineering undergraduate education: Faculty attitudes and pedagogical practices. *College and Research Libraries* 60, no. 1: 9-29.
- Ren, Wen-Hua. 2000. Attending to the relational aspects of the faculty citation search. *The Journal of Academic Librarianship* 26, no. 2: 119-123.
- Snavely, Loanne, and Natasha Cooper. 1997. Competing agendas in higher education: Finding a place for information literacy. *Reference and User Services Quarterly* 37, no. 1: 53-62.
- Stahl, Aletha D. 1997. "What I want in a librarian": One new faculty member's perspective. *Reference and User Services Quarterly* 37, no. 2: 133-135.
- Stein, Linda L., and Jane M. Lamb. 1998. Not just another BI: Faculty-librarian collaboration to guide students through the research process. *Research Strategies* 16, no. 1: 29-39.
- Winner, Marian C. 1998. Librarians as partners in the classroom: An increasing imperative. *Reference Services Review* 26, no. 1: 25-30.