Abstract

In recent years, Barcelona Provincial Council has followed a strategy of evaluating the impact of its library programmes. This article presents the impact evaluation results of three such programmes. The impact evaluation of ‘easy-to-read’ clubs was made using a before-and-after methodology, and it showed a 54% increase in participants’ reading habits, and an 18% increase in their language skills. Digital training courses for over 55s were evaluated through randomized control trials. Participants increased their use of communication apps by 15%, and their use of Internet for leisure purposes and access to media by 18%. Finally, a reading promotion programme called ‘Velocirepte’ was analysed to evaluate its impact on the use of library services, through a quasi-experimental matching methodology. On average, participants took out almost 9 more library books per year than the control group.

Keywords: impact evaluation, public library, statistics, province of Barcelona.
1. Introduction

The Municipal Libraries Network (MLN) of the province of Barcelona, which is supported, run and managed by Barcelona Provincial Council, consists of 227 libraries and 10 mobile libraries which provide a service to 252 of the 311 municipalities in the province of Barcelona. Almost the entire population of the province (98%) has a public library service or a mobile library service in their municipality.

The libraries in the MLN are municipally owned, and are managed jointly by the municipal councils and the Barcelona Provincial Council by means of agreements signed between the provincial body and each municipal council. In the city of Barcelona, the public library service is managed by the Barcelona Libraries Consortium, which is jointly owned by Barcelona City Council and Barcelona Provincial Council.

Its mission statement reads as follows: ‘The Library Services Management Office (LSMO) of Barcelona Provincial Council advises and supports councils on establishing and developing their library services, and leads the Municipal Libraries Network of the province of Barcelona in order to ensure territorial balance and quality of service as regards libraries, and access to information, knowledge and culture for all citizens.’

The LSMO has been undertaking projects directly related to the concept of continuous improvement for some years. These projects were designed to help the managers of municipal library services to improve their service by completing successive series of continuous improvement processes. The longest running project is the Libraries Benchmarking Quality Circle. It was established in 2004, and is an instrument to support the evaluation and improvement of the municipal library service, by comparing performance indicators (benchmarking).

The raison d'être of public services is the benefit they can provide for the people who use them and for the societies they serve. A public library service therefore does not exist to make many loans, schedule many activities or train many people, but instead public libraries were established as an instrument to educate citizens and to ensure universal access to information and culture. In short, they contribute to individual and social development in the direction that is considered desirable at any given time, according to a society's specific social and political vision.

Impact evaluation projects measure the extent to which public services contribute to the positive development of the individuals who receive their services and of the community as a whole, and measure whether the resources allocated to them are used in the most efficient and effective way to achieve this. This is not a simple calculation, as services do not impact on individuals and society in isolation. Instead, society evolves as a result of the combined impact of the various activities that take place within it, which are public and private, individual and collective, and are both heavily planned and highly spontaneous or disruptive.

For this reason, and because the traditional model of public libraries has been questioned in recent years, there has been a growing concern to demonstrate that public libraries effectively and efficiently contribute to both personal and collective development.

In 2013, the LSMO, in partnership with Barcelona Provincial Council's Planning and Evaluation Service, carried out a study on the return on the MLN's investment. This study
concluded that every euro invested in maintaining the work done by the libraries in the MLN (maintenance of equipment and facilities, staff expenses, spending on activities, purchases of documentary collections and subscriptions) generated direct benefits amounting to €2.25 per user. It must be pointed out that the study did not include the initial investment, because its evaluation and inclusion in the study would have been methodologically very difficult, taking into account the size of the MLN and its expansion and prolonged deployment throughout the province. However, not all the services were incorporated in the benefits, and only the financial impact of the more traditional face-to-face public library services was defined. Accordingly, the indirect benefits of the use of these services were excluded from the benefits section; e.g. the library's ability to directly generate economic activity as a result of its activities, or to do so indirectly as a result of the individual development of its users, and the impact that this may have on the community as a whole.

Return on investment methodologies have been criticised due to their limitations in terms of incorporating the evaluation of the impact of actions, programmes and policies in the economic, social and community spheres, and indirect impacts in particular. A number of methodologies that attempt to incorporate these other values in the calculation of returns on investments have been developed for this reason. These projects measure the social return on investments.

In 2015, Barcelona Provincial Council's LSMO and Planning and Evaluation Service identified the areas for individual and social development in which the public library service would potentially provide benefits. Four areas of action of the libraries were identified in this approach to social return: the cultural area, the social area, the economic area and the educational-informational area. Fifteen specific potential benefits were classified in these areas. For each one, the study provides a conceptual evaluation of the benefits, identifies the actions and tools that public libraries provide and the services they offer, and which have been found to contribute effectively to the benefit being analysed, and finally, it describes the specific benefits.

As a result of the study of the social value of the libraries in the MLN, the LSMO decided to carry out impact evaluation studies of some of the actions and programmes carried out by LSMO libraries. This document presents the results of three impact evaluations which have been carried out over the last four years, which will be summarised in the following sections. The actions and programmes studied are: the Easy-to-Read Clubs, the Digital Training Courses for people over 55s, and the ‘Velocirepte’ reading promotion programme. Each of these three impact evaluations used a different methodological approach, taking the characteristics of the programme into account.

The simplest method to evaluate impacts, and the least robust, is known as the before-and-after design. Information regarding the beneficiaries of the policy both before and after its implementation is required if it is to be applied. The impact of the policy is obtained by calculating the difference between the average of the outcome for the sample of beneficiaries at each of the two points in time under consideration. The counterfactual is defined based on the same individuals' experience before the policy existed. If this method is to correctly estimate the impact of a policy, the key assumption is that there must be no other factor, other than the programme, which could have affected the outcome between the two points in time when the data was collected. This method was used to assess the impact of the Easy-to-Read Clubs.
**Experimental designs** are based on a population of potential beneficiaries of the programme or policy, and individuals participate or not according to a purely random assignment mechanism; the individuals who do not participate, i.e. the control group, are the counterfactual in this type of design. An experimental design was used for the **digital training courses for over 55s**.

The common feature of **quasi-experimental designs** is that individuals' participation in the programme is not defined by a random procedure (either because the individuals themselves choose whether they participate or not, or because another agent makes this decision, or for both reasons at the same time). In quasi-experimental designs, the counterfactual is defined based on the individuals who do not participate in the programme (and who have similar characteristics to the participants), who then make up the comparison group. A quasi-experimental design was used in the evaluation of the ‘**Velocirepte’ reading promotion programme**.
2. Easy-to-read clubs

2.1. Description and objectives of the programme
Public libraries are entrusted with guaranteeing access to knowledge and culture for all citizens and strive to provide specific services and materials for people who are unable to use the usual services and resources, such as disabled people and readers who have limited literacy skills.

The libraries in the Municipal Libraries Network (MLN) in the province of Barcelona work through Easy-to-read clubs (ERCs) to help citizens who are less able to read texts to develop their reading skills and habits in order to enhance their reading comprehension of Catalan or Spanish, and to engage in a type of reading that is meaningful for their personal development and for their integration and engagement with the society in which they live.

2.2. Type of evaluation and methodology
In 2017, the Barcelona Provincial Council's Library Services Management Office decided to carry out an evaluation process to ascertain the impact of the ERCs in the MLN, in both cognitive and social terms\(^1\).

12 ERCs (out of a total of more than 70) were selected, based on several criteria: their history (they had to be well-established), their duration (ERCs lasting a year or a school year), the type of participants (ERCs with both temporary and permanent participants), materials (ERCs using books with an Easy Reading label or combining books with and without an Easy Reading label) and different profiles of participants in the ERCs (people with reading difficulties, people with a mental health disorder, etc).

A before-and-after design was used, and the data needed for the impact evaluation\(^2\) was compiled mainly by means of a questionnaire designed for that purpose, which was completed at two points in time: when the participants registered for the ERCs, and after its conclusion, at the end of the last session in the course. Both questionnaires were distributed to the participants in the ERCs, and included several items classified according to different dimensions of analysis.

2.3. Main results of the impact evaluation
The figure below shows the main results of the impact calculation.

\[^1\] An evaluation of the implementation of the programme was also carried out, which included a description of the profile of programme participants, the development of the programme, and the participants' satisfaction with the programme.

\[^2\] Two qualitative techniques were also used for the implementation evaluation: non-participant observation (i.e. presence at workshops taking place, but with no intervention in its dynamics), and in-depth interviews (with a selection of agents for coordination, management and promotion of the ERCs).
From a general perspective, the dimension that received the greatest impact was reading habits, which increased by more than 50%. Although the greatest increase in reading occurred in the books with the Easy Reading label (78%), reading of non-adapted books also increased (30%).

A significant impact on the improvement of language skills (18%) was noted, including the diversity of vocabulary, reading comprehension, fluent communication, and the construction of sentences and general knowledge of Spanish and of Catalan in particular.

Participation in the ERCs increases the indicators that analysed the social dimension by an average of 9%. ERCs foster social integration by creating new social relationships between the participants (which in turn reduce situations of social isolation and, on a personal level, boredom), and they foster social cohesion through participation in non-governmental organisations and learning about the language and culture of the territory.

ERCs increase the use of library services by 8%. The frequency of visits to the library is improved, which indirectly results in a higher profile and libraries opening up towards segments of the population which previously used and related to the library services to a limited extent. In more specific terms, the uses of some library services increased: these included courses, workshops and other cultural activities.

The impact on the participants' cultural activity and their personal well-being is practically non-existent.

The evaluation team passed on the results of the evaluation to the Library Services Management Office of Barcelona Provincial Council, to the libraries organising the ERCs, and to the Easy-to-Read Association.

The full results of this evaluation are available via the following link: https://www.diba.cat/documents/16060163/23868316/2017_avaluacio_impacte_CLF_infome.pdf/965b7f18-59f6-430a-96c3-6f9359df2bf2
3. Digital training courses for over 55s

3.1. Description and objectives of the programme
The Digital Training Courses are aimed at people over 55 years of age, and are organised by the Pere Tarrés Foundation and the Vodafone Spain Foundation, in partnership with the Municipal Libraries Network of the province of Barcelona. The workshops are funded by the Vodafone España Foundation.

This activity began in 2014, and almost 800 people took part in the first two yearly editions, in 27 libraries in the Municipal Libraries Network of the province of Barcelona.

In the 2016 edition, which was the subject of the evaluation, the workshops consisted of three modules, with each module lasting four hours:

1. ‘How your smartphone works’
2. ‘Photos and videos with your mobile. Show your creativity’
3. ‘Apps and WhatsApp, instant communication using your mobile’

The participating libraries were able to choose between offering all three modules, or only the last two.

3.2. Type of evaluation and methodology
The evaluation examined the impact of the workshops on use of the Internet in order to carry out a range of activities and tasks, which were directly related to both the contents of the course and to other possible uses of the Internet. The impact of the workshops on the quality and quantity of the individuals' social relationships was also studied.

The evaluation was carried out by means of an experimental design, and places in the workshops at each library were assigned to people interested in attending the workshop by means of a draw, which created two homogeneous groups of users requesting places: those who would actually attend the workshops and those who would not attend the workshops, i.e. the control group.

The data necessary for the evaluation was collected primarily through a questionnaire designed for that purpose, which was completed at two points in time: when pre-registering for the courses, and an average of 4 months after the workshops had ended. The two questionnaires were distributed among the people who attended the workshops and those who were not assigned a place.

Sixteen libraries and almost 500 people took part in the experimental project and monitoring data for 300 people was obtained.

3.3. Main results of the impact evaluation
The study shows that attendance at the workshops is associated with a statistically significant increase of 13% in the frequency of use of any application related to communication (WhatsApp, Facebook, etc.) and with a similar increase of 18% in the frequency of Internet use for any purpose related to leisure and media access. It was not possible to associate attending the workshops with any statistically significant increase in the use of apps or tasks individually, except for using the Internet to sell items, or with variations in the variables that measure aspects of the individuals' social network.
The results show that the workshops only had an impact on the topics covered in the workshops, i.e. what could be described as a direct impact, but not on using the Internet for other activities or on the social network of the participating individuals, i.e. indirect impact.

Two aspects of the workshops and the evaluation should be considered when assessing these results. First, the short duration of the workshops and therefore their limited content, and second, the applicants' prior personal characteristics in terms of their education and Internet use. This aspect, combined with the fact that there were similar relevant increases in Internet use for different reasons in both the treatment and control groups, may indicate that the individuals in both groups learned to use different tools and applications, either on their own, or thanks to the workshop, or a combination of both.

The evaluation team recommended to the organising bodies that, in order to improve some concrete topics related to the participants' digital education, these concepts should be specifically included in the contents of the course. It also suggested that, in order to enhance the impact of the workshops, an attempt could be made to recruit people with lower levels of prior knowledge and use of the Internet.

The full results of this evaluation are available via the following link: http://ivalua.cat/documents/1/04_09_2017_07_04_40_AvaluacioTallers_Ivalua_DIBA_CAST.pdf
4. The ‘Velocirepte’ reading promotion program

4.1. Description and objectives of the programme
‘Velocirepte, the reading challenge’ is a programme run by the Barcelona Libraries Consortium to promote reading among users of Barcelona’s Libraries. The immediate background to the ‘Velocirepte’ programme lies in the experience of one of the city’s libraries (Sagrada Familia Library) in 2016, which encouraged reading by applying concepts taken from gamification theories.

The guidelines of the 2018 edition of the ‘Velocirepte’ programme specified that the objective of the programme was ‘to promote reading among the users of Barcelona’s Libraries’. A second objective was also mentioned in several communication initiatives: ‘to discover new authors and/or subjects which would otherwise not have been read’.

The ‘Velocirepte’ programme ran from January to December 2018, and consisted of reading at least one book per month on a specific suggested challenge (i.e. topic).

4.2. Type of evaluation and methodology
The impact evaluation\(^4\) endeavoured to determine the impact of the ‘Velocirepte’ programme on the use of the loan service, as well as on other library services (Wi-Fi, Internet access by public computers).

The evaluation took place from January to March 2019, after the 2018 edition of the programme.

An impact evaluation was carried out\(^5\) using a quasi-experimental methodology, using the matching technique. This technique consists of creating a control group composed of individuals who are not subject to the policy or programme, each of which has identical characteristics to one of the individuals who does participate in the programme. Personal characteristics (age, gender, nationality and neighbourhood of residence) were taken into account for the ‘Velocirepte’ programme, as well as the individuals’ history of using library services (loans, Wi-Fi connections and uses of libraries’ computers for Internet access). Two groups of people were therefore established: those registered on the programme (‘Velocirepte’ group), and those not registered on the programme (control group).

4.3. Main results of the impact evaluation
The figure below summarises the main result of the impact calculation. The number of loans prior to the start of the programme (2016, 2017) was very similar for the two groups analysed: the ‘Velocirepte’ group and the control group.

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\(^3\) ‘Velocirepte’ is a word that combines ‘velociraptor’ a dinosaur known for its speed, and the Catalan word ‘repte’, which in means ‘challenge’. The promotional image of this library programme was a velociraptor reading a book.

\(^4\) An evaluation was also carried out of the implementation of the programme, which included a description of the profile of the programme participants, the extent of monitoring of the programme, and the participants’ satisfaction with the programme.

\(^5\) Data from the database of programme participants, the database of uses of Barcelona libraries, and satisfaction surveys from programme participants were also used for the implementation evaluation.
In 2018, the difference between the average for the two groups was almost 9 loans more for the group of participants in the ‘Velocirepte’ programme, which showed that the programme had a positive impact on the use of the library loan service.

Figure 2. Average loans 2016-2018, ‘Velocirepte’ group and control group

Furthermore, the ‘Velocirepte’ programme did not reduce the previous levels of use of the loan service; i.e., the uses of the loan service created by the ‘Velocirepte’ programme were complementary to the previous uses.

As expected in a programme that stimulated reading, the ‘Velocirepte’ programme had a non-significant impact on the use of Wi-Fi services and on the use of libraries’ computers for Internet access.

The evaluation (particularly the implementation evaluation that complemented the impact evaluation) enabled the evaluation team to make some recommendations arising from the work carried out:

a. identify new means of access to the programme for specific groups that would increase the participating population
b. consider the possibility of limiting the reading challenges in future editions to the months of January-June and September-December and complement the months in the middle of summer - July and August - with other formulas to encourage reading, such as recommendations
c. involve the library staff in the definition of the challenges and highlight the specific contents of the libraries’ collection
d. make improvements to the user management applications and recording of the challenges.

These recommendations were passed on to the Barcelona Libraries Consortium, which will take them into account for the next edition of the ‘Velocirepte’ programme, which is scheduled for 2020.

The full results of this evaluation are available via the following link:
5. Conclusions and challenges

The challenges to be addressed by policymakers and public library specialists require a strategic vision of the direction in which the library service needs to evolve and, at the same time, they need to be open and sufficiently flexible to encourage the emergence and development of innovative projects linked to the future public library service.

Measurement of the impact of changes on the library service as a concept and on the services offered by public libraries must be possible. It must be possible to determine whether these changes favour the achievement of the ultimate goals of the public library service and whether they do so in an efficient manner. In other words, the planning of the development of services, programmes and policies must incorporate monitoring and control systems in their implementation that facilitate the easy collection of management data, in order to focus efforts on evaluation projects, and on the evaluation of the impact of policies and programmes in particular.

The studies and evaluations of public libraries and their users are available via the following link: https://www.diba.cat/web/biblioteques/estudis
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