Theory of Change: a new approach to data by Schools Library Services in the UK

Stella Thebridge
Warwickshire Schools Library Service, Warwickshire County Council, Warwick, UK.
stellathebridge@warwickshire.gov.uk

Gillian Harris
Tower Hamlets Schools Library Services, London Borough of Tower Hamlets, London, UK.
 gillian.harris@towerhamlets.gov.uk

Abstract:

For a long time, Schools Library Service (SLS) Managers in the UK have wanted a means to collect and analyse meaningful data from the schools they serve, in order both to measure the impact of SLSs in the enhancement of teaching and learning in primary and secondary schools and to demonstrate the value for money their services provide.

A sub-group of SLS managers within the professional body ASCEL (Association of Senior Children's and Education Librarians), worked with Sharon Markless from Kings College London, a respected academic in this field, to develop a Theory of Change framework fit for use across all SLSs, many of whom operate with very different subscription models. A national approach enables SLSs to not only gauge their own value and effectiveness, but also share data and develop their services. It also benefits schools by drawing on their data to show the value of the school library and its services to its stakeholders.

The attraction of Theory of Change has been in the ability to create a robust framework allowing for the build-up of relevant data which can be applied to benefits and outcomes across the UK regionally and nationally, creating from existing collection methods a wealth of data in a much shorter space of time than can be achieved by traditional methods of surveying schools. This is because existing data collection is coupled with replicable group evaluation activities that can yield results more effectively. Surveys are rarely answered by an adequate sample, are very time-consuming for analysts and rely on absolute clarity of understanding both of question setters and respondents to achieve meaningful results. The framework looks at all the opportunities to collect segments of data and then merge them to create an overall picture.

This paper details the background to SLSs and why this data collection is needed, the process of defining the framework and the benefits many will now be able to reap from adopting the framework both to collect data and to contribute to wide-reaching evaluation outcomes.

> **Note:** The term SLS (Schools Library Service) is used throughout this paper even though some equivalent services use slightly different names, e.g. Education Library Service. SLSs are distinguished from public library services in the UK by being traded and taking payment from schools for the services offered, as described in more detail in the paper. Some are run by the local authority, others by independent trusts. Some local authorities have no SLS.

Schools Library Services and school libraries in the UK

The UK has evolved a unique network of services which lend books and other resources in bulk to schools for classroom topic work and to enhance the stock in the school library. This is an offshoot of the long-standing public library network begun in the nineteenth century and which, since the 1964 Public Libraries Act of Parliament, has legislated for a comprehensive library service usually within one mile's reach of everyone – either a designated building or a mobile library. The high aims of this act to give everyone "desiring thereof" the opportunity to borrow books, has never been matched by school library provision which has consistently been omitted from school standards and Ofsted (Office for Standards in Education) school inspection frameworks. Whereas secondary schools tend to have a library and designated staff, many of whom would have appropriate qualifications, primary school library provision has always been more patchy, and Schools Library Services are at the forefront of the drive for change in this area – providing advice on managing libraries, book purchase and software and even, in some cases, providing librarians. In areas with no Schools Library Service, there is considerable variation in the quantity and quality of bookstock, the provision of a library management system and the wider promotion of reading for pleasure with associated activities as well as formal learning in the library.

The situation in recent years in the UK has been exacerbated by austerity manifesting itself in all aspects of the economy including education and the service sector. Schools cut support staff in order to meet budget restrictions, knowing that there must always be adequate teacher provision. Library staff may become expendable, not just assistants but also those working solo in their library, whether professionally qualified or not. There is an assumption that all library work is non-professional, and this is leading to an erosion of expertise and ultimately of support for teaching and learning in schools, not to mention the loss of the consistent promotion of reading for pleasure (a key government objective).

School library staff urgently need robust data as do SLS managers not only to demonstrate the extent of their day-to-day operations but also to provide evidence of the added value they bring to their stakeholders. To this end qualitative data is vital, yet this is the most difficult to harness meaningfully.

While public libraries in the main serve their public for individual needs, SLSs provide subscribing schools with services including the following examples.

They:
▸ Lend books and other resources on curriculum topics to teachers for use in the classroom

- ‣ Offer advice on library and literacy matters
- ‣ Promote reading for pleasure through book lending and promotional activities, such as book awards and other activities
- ‣ Offer training / continuing professional development (CPD) to school library managers and other school staff on library management, reading promotion and using resources.

There are currently some 80 SLSs in the UK, compared with 151 public library authorities in England and a further 50 or so in Wales and Scotland together. Northern Ireland does not operate SLSs.

Data collection and evaluation

For many years in the UK, Schools Library Services (SLSs) have struggled to collect meaningful data to evaluate their services. As traded units, (i.e. schools pay to use their services) they need to prove their worth in the marketplace and to show the added value their service provides to schools both in terms of curriculum support and the value for money of borrowing as against buying books. Sharon Markless and David Streatfield analysed SLS provision in 2000 (Markless, 2000) but very rarely have there been UK-wide surveys of SLSs. The last major one was in 2005 under the auspices of LISU (the Library Statistics and Research Unit at Loughborough University). ASCEL (Association of Senior Children's and Education Librarians) have informally gathered data from their members on occasions – 2013 and 2015, and produced internal documents that summarised findings, but these focused on the nature of the services offered and their success as a business, rather than attempting to assess impact.

For their part, many school librarians struggle to produce anything more than the statistical outputs of their library management systems – stock catalogue, issues, reservations, details of books borrowed by each student. There have been attempts to pool this kind of information, not least by SLSs in 2003 when ASCEL undertook a benchmarking exercise (ASCEL General Report, 2003). A total of 587 secondary schools with 571,960 pupils from 41 local authorities returned completed questionnaires, representing more than 25% of the local authority secondary schools in England at the time.

While such statistics tell a part of the story of activity in the school library (and represent a considerable improvement on the situation before computerised systems came along), staff need the complementary detail of qualitative data, and this is very much harder to collect in a format that allows for claims of significant results or generalisable trends emerging from the data.

It is hoped that by passing on data already collected in school to their SLS, librarians may be able in time to benchmark their school library against others in the same sector, of comparable size, geography etc. This could be a very powerful tool for advocacy within the school and externally. The Theory of Change (ToC) in this instance does a not require any more work of school librarians than the data they are already receiving from library management system reports.

Similarly, where SLSs might ask librarians or school teachers to conduct a focus group around the students' reading or learning experience, the analysis and evaluation of this would not need to be done by the school, as the SLS staff would be able to feed this in to the wider picture across their own SLS and ultimately the UK. This would again result in useful information for

the school about its performance and the contribution of the library and SLS support within that.

Theory of Change (ToC)

Sharon Markless has done a great deal of research in the library sphere over many years and focussed on schools library services in 2000, when she and her colleagues at Information Management Associates worked to produce some performance indicators for such services (Markless, 2000) Because of this track record, Sharon was asked in 2017 if she might discuss new ways with SLS managers to find a workable model to address their needs. With declining budgets in schools, SLSs were finding themselves struggling to break even, and both time and staff capacity were constrained.

This was coupled with the need to find a method of evaluation that could harness what schools and SLSs are already collecting, and which could in turn support the needs of school librarians for useful data to prove their worth.

Sharon led a challenging but empowering workshop at the ASCEL conference in November 2017 and introduced the concept of Theory of Change (ToC) which has been gaining ground in recent years in a range of sectors. Sharon felt ToC could serve our purposes as it was proving difficult for SLSs to prove impact on schools' reading, learning and library programmes beyond the quantitative data relating to the provision of resources. There was a need to combine this with other qualitative factors - best practice, teacher engagement, support of school management, etc. - to prove the impact of SLSs more unequivocally in schools' drive to raise the achievement of their pupils. The ToC framework chosen for SLS-UK[1] had worked well with library services in other sectors and enabled the combination of a variety of factors to be measured, and so the managers opted to work to this particular structure.

Much has been written around the ToC and how it works. In this context Jennifer Greene's writing over many years supports the use of mixed methods in evaluation. Two of her articles are cited in the references (Greene, 2012 and 2015). The formation of a ToC framework in any organization requires a process, referenced by ActKnowledge in a helpful paper of 2011 as a 'causal pathway'. The pathway is "a step-by-step backwards mapping process through which a group determines all the preconditions necessary to reach an ultimate vision." (ActKnowledge, 2011). This seemingly backward process is exactly the method set in motion by Sharon with the group of SLS Managers to define their theory.

The paper from Act Knowledge (2011) is a clear and helpful account of the ToC process and is strongly recommended.

What makes ToC different?

Theory of change is a <u>process</u> not a one-off evaluation activity. It enables data gathering and evaluation to be placed in the context of organisational goals. The process has five recognised stages, the detail of which has to be determined by the organisation, beginning with key *areas of impact* for the organisation. Typically an organisation should identify three to five areas in

---

[1] "SLS-UK" is the "brand name developed by SLS managers in ASCEL to enable them to market SLS services on a national basis.

total. Then, for each area of impact, *impact objectives* need to be determined and the data required identified:

For each *impact area* and *impact objective*, the group identified:

- impact indicators
- what is the evidence and what data is required
- process/activities – how to collect the data
- process indicators
- who will collect the data.

There will be three or so *impact indicators* for each area of impact and its corresponding objective(s), each of which has a statement to show what the corresponding activity or piece of evidence will be for that indicator.

Sharon explained how each impact indicator should be described, as follows:

> "State the ***specific*** changes in attitude, behaviour, materials produced etc. that will tell you if you are making progress towards your impact objectives (what you are trying to achieve)" (Markless, 2018)

The key difference between a ToC framework and one-off methods of occasional evaluation like surveys or a series of focus groups is that, while these may still take place they are now channelled coherently into the process as a whole alongside existing data sets which can also easily be added.

Whereas one-off evaluations by individual SLSs are statistically inconclusive, in ToC, by use of the same evidence gathering processes, data from a few schools (respondents) to each SLS can be added legitimately to responses to the same questions from other SLSs across the UK, because all have the same framework and collection method. By being replicable across numerous SLSs and schools, the data contribute to far-reaching conclusions for both as a whole, which could not be achieved by other methods of evaluation either one-off across the board or taking place in one SLS or school only.

Once the framework above is clear, the final stage is to articulate the range of data collection methods, questions to be asked where new methods are to be employed, the audience for these and the source of data in each case (often more than one), e.g. SLS, school librarian, teacher, student group. The SLS managers formulated a range of data sets, collection methods geared to different audiences and all of the above sources (people) for at least one of the impact areas.

A ToC framework for SLSs in the UK

Following the discussion at ASCEL conference, a small group of SLS managers agreed on two dates (in January and March 2018), when they would meet with Sharon to flesh out a ToC framework for SLSs across the UK. This would not only strengthen individual SLSs by providing a robust, ready to use framework, it would also add weight to the emergent brand that SLS manager members of ASCEL were developing to create national offers to schools, namely SLS-UK.

At the first workshop in January 2018, Sharon summarised research methods, outputs versus outcomes and the ways in which ToC could be a model for our purposes (Markless, 2018). She explained that a ToC must be *plausible* (strong evidence theory), *doable* (sufficiently well-resourced to serve the ToC impact areas) and *testable* (with credible means to track progress). She also quoted the following:

"A good ToC is embedded in the context of the intervention and is developed incorporating the perspectives of key stakeholders, beneficiaries and the existing relevant research." Mayne (2012)

Sharon then addressed each of the ToC areas described above, clarifying how each grows from the original areas of impact, and stressing that these are key to the success of a ToC framework.

Following Sharon's exposition of the ToC process, the sub-group identified five areas of impact for the SLS-UK framework and the key impact indicators in each of these five areas. After the first workshop, the group members went away to work on indicators in time for the second day's workshop. It was only after this that these initial impact areas were finally defined as follows:

1. Student experience
2. Reading
3. Enhanced teaching
4. School librarian / library practice
5. Perceptions of SLS.

For each of these, a key impact objective needed to be articulated. This was also no mean feat as the group tried to tease out the essence of a key objective for each area of impact. This was the result for each of 1-5 above (again, finalised at the end of the whole process):

1. Enhanced quality of student experience and learning
2. Enhanced student engagement and progression with reading for pleasure and reading for learning
3. Teachers are better able to adapt teaching strategies to the needs of their pupils and the curriculum
4. Increased capability and effectiveness of school library (and librarian) to support the school
5. Stakeholders understand and value contribution of SLS.

The remaining sections of the ToC framework were formulated by the sub-group working in conjunction with a wider group of SLS Managers in membership of ASCEL, from April to September 2018. This was seen as crucial to ensuring a robust and respected process that SLS managers would use.

Table 1 shows the full framework for the sections relating to Impact area 1 (the student experience) and the impact objective – The enhanced quality of student experience and learning.

Impact indicators	Evidence/Data collection	Process/Activities to meet indicators (SLS chooses up to 3)	Process indicators	Data collection/Who?	Question reference	comments	observation
1. Students and staff can easily access a range of high quality material appropriate for learning.	SLS data (number of loans linked to number of students) local student focus group run by school librarian. Primary and secondary meetings to question staff.	e.g. Loans services, book purchase, library reorganisation, mobile libraries,	e.g number of times you do this, who are you reaching. (who is attending)? or stock numbers	SLS staff and/or school library staff/teacher and/or SLS survey.		Create standardised questions - are they subscribing to the recommended level?	
2. Students have a positive experience of using learning resources	Student focus group or questionnaire	e.g. Ensuring a wide range of resources for engagement, literacy sessions, advising staff how to integrate resources, book awards, teacher hints, online resources suggestions, teacher training.	e.g number of times you do this, who are you reaching. (who is attending)? or stock numbers	SLS staff and/or school library staff/teacher and/or SLS survey.		Focus groups for younger children and questionnaire for older students	What was the reaction of the children using the resources ie, books, artifacts, websites? How pupils are using them, level of engagement, enjoyment - how much are they getting out of the experience. Where did you get your resources from.
3. % of students who have access to a good school library	SLS data and awards data (mobile library)	e.g. SLSUK award, library advisory service, librarian support, training for teachers and librarians, annual school library loan, bulk loan.	e.g number of times you do this, who are you reaching. (who is attending)? or stock numbers	SLS - SLS UK award assessment or Great Schools Library campaign data		Focus group - 1. if you want to ensure all children are heard. Children have to have time to formulate their own thoughts before they share it. Write down individual responses to your questions. Put them in groups to compare and talk. Allows each child to have a voice. You can then type it up or take a picture of it. Response from the whole group. 2. question on a large bit of paper re how they feel about... 3 round robins divide group into 3 different question on top of each sheet eg what are the main barriers and what helps you use and...Each group writes together and then move around and add to sheet. 4. Card sort - What do you think we have the most impact on?	
4. Teachers reports students are engaged in independent learning using resources provided by SLS	Teacher meeting or observation	e.g appropriate resources, library and information scheme of work, teacher training, working directly with teachers, research skills teacher training for online research	e.g number of times you do this, who are you reaching. (who is attending)? or stock numbers	SLS- Teachers questionnaire/meeting/report			
5. students report that the school library is a safe and supportive environment	student focus group	e.g.librarian, school staff and pupil librarian training, secondary forum, stock advisory support,	e.g number of times you do this, who are you reaching. (who is attending)? or stock numbers	school or library staff			

Table 1: Impact area 1 – Student Experience. The five impact indicators and further framework detail.

The same process was worked through for each of the other four impact areas. Then questions were devised for each of the impact areas to enable SLS managers to ask the same questions of stakeholders. It is fair to say that not all of these has been finalised as we have not yet tested them all on a sample of schools.

The most fully worked out impact area is the final one (Perceptions of SLS), and the work done in this area is described below.

The impact indicators in this case for the impact objective are as follows:

Impact Area: Perceptions of SLS Impact objective: Stakeholders understand and value contribution of SLS
1. The % of schools using an SLS
2. Stakeholders recognise the savings of time and money that can be made by using an SLS
3. Schools routinely ask SLS for advice on library matters, reading and resourcing the curriculum
4. The school feels able to adopt a more flexible approach to the curriculum
5. Stakeholders routinely invite SLS to relevant meetings, conferences etc.

Table 2: Impact indicators for Impact area 5 – Perceptions of SLS

The questions for this section are at Table 3. Note that the first indicator does not have questions as it is answered entirely by the SLSs own quantitative data. This shows the flexibility of ToC and time saved in that the framework allows use of existing data sets.

	2. Stakeholders recognise the savings of time and money that can be made by using an SLS

a	To what extent does SLS save you time? (two response options)
	
	   i) Teachers time / Teaching Assistant time /Admin support time / SLS does not save us time / Other
	   ii) Selecting books / purchasing books / choosing books for a topic / helping us keep our books up-to-date / choosing differentiated texts / other / none

b	To what extent does SLS save you money? Finance officer time / Book purchase / Admin support time / SLS does not save us money OR indicate on scale of 1 to 7
c	*Headteachers only* Why do you choose to subscribe to the Schools Library Service? Why have you stopped subscribing to the Schools Library Service?
	3. Schools routinely ask SLS for advice on library matters, reading and resourcing the curriculum

a	To what extent would you use SLS for the following advice on library matters? Please circle (on a scale of 1-7 where 1 is not at all and 7 is most likely)
	
	   • Reading for pleasure
	   • Resourcing the curriculum
	   • Resourcing local studies
	   • Library refurbishment
	   • Library management support
	   • Training for school staff
	   • Pupil librarian training
	   • Promoting reading in school

b	Who else might you consider asking to supply these services?
	
	   • Public library
	   • Library supplier or bookseller
	   • other

	4. The school feels able to adopt a more flexible approach to the curriculum

a	To what extent can you rely on SLS to provide appropriate curriculum resources?
	
	   • Every time we borrow
	   • Mostly

b	Can you give any examples of inappropriate provision by SLS?. Please give details
c	Can you give any examples of excellent resource provision recently by SLS? Please give details
d	Aside from general topic requests can you give an example when SLS has supported you?

	5. Stakeholders routinely invite SLS to relevant meetings, conferences etc.
a	To what extent would you invite SLS staff for the following? Please circle (scale of 1-7 see above) • leading training for staff • leading training for students • addressing a staff meeting • addressing a governors meeting • addressing a meeting with parents
b	Who else might you consider asking to supply these services? • Public library • literacy organisation • school volunteer, e.g. parent

Table 3: Questions for impact indicators in Impact area 5 – Perceptions of SLS

The framework in practice

The key rationale for the work was a straightforward framework, easily usable with tested questions and that could avoid ambiguity or leading questions. It was understood this would never be a quick fix, but equally we wished to find a process where we could start as soon as possible to harness usable data.

While the process is still quite new, we have made a start. The SLS managers as a whole agreed (perhaps unsurprisingly) that they would like to work first on the fifth area of impact – Perceptions of SLS. They immediately (October 2018) invited any SLS to send a tweet asking schools to endorse their SLS. This attracted a modest number of Tweets (36) to a total of 15 SLSs. While this may not seem a huge response it has already created more impact than any individual SLS sending a single tweet. This is because those that only received one response and those who received up to eleven, can now be part of a whole, thanks to the ToC framework. Here is a flavour of the responses:

- A friendly and knowledgeable service. Great resources used across the school – tailored to fit each year group and one we can't do without. Such an invaluable resource and support.
- When I first started my role, it was challenging to say the least as it was my first time as a school librarian! So they helped me weed books & to help bring the library up to date. Also the countless amounts of librarian meetings really help with talking to others.
- They organised to do a reading for pleasure report for me early on. This has been the foundation for the transformation of the library from some books in a corridor to a fully functioning, well loved & used library issuing 12,000 books last year.

A more detailed set of questions was agreed for this section of the framework and sent out by a few SLSs who chose to concentrate on this topic in late 2018 (see Table 3 above). Again, the results to these few SLSs gave the total number of responses more weight. The questions included one for head teachers about their decision to subscribe (or not) to the SLS. Others could be answered by the library manager or other staff member. The other questions were multiple choice or had ranges from 1-7 for responses (this range was suggested by Sharon Markless as ideal for ensuring respondents think carefully about their reply) in order to avoid

ambiguity and to synthesise responses. We are now in the process of encouraging more SLSs to ask these questions of their schools so that we can provide a larger pool of responses to add to the ones already collected.

Two SLSs trialled these questions. Guernsey (in the Channel Islands) and Warwickshire in the centre of England represent different areas of the UK in terms of population size and also in terms of their SLS structure. The responses received by the two disparate authorities from their schools demonstrate the value, even on this small sample, of combining the results. Guernsey received responses from eight schools out of its 24 schools (33%) and Warwickshire from thirteen of its 240 schools (5%). The low response indicates the necessity to combine data across regions, and it is worth remarking that as Guernsey's service is partially funded by the authority and so nearly all of its schools subscribe to the service, they are more likely to respond whereas only half of Warwickshire's 240 schools subscribe to Warwickshire SLS, and so the other half do not feel they have any reason to respond. Therefore, the response rate for Warwickshire can be calculated at c10% of subscribing schools.

Both trials received positive feedback to the questions posed.

The SLS managers formulated questions for every impact area, but, as with other parts of the process, it is not essential for all SLSs to use all the questions, nor to gather data concurrently. What is important is that, if an SLS wishes to survey one impact area, they should select questions from the question bank rather than formulate their own. This means that SLSs can build up a picture of their own service and then this can all feed into a bigger picture as more come on board with the same parts of the framework. An ASCEL member collates the responses from all SLSs to a single spreadsheet that is accessible to all members. Clearly where SLSs do opt to do a piece of data collection in the same area, this will speed the process for producing measurable outcomes and impact on the five agreed areas.

Conclusion

The adoption of a Theory of Change framework by SLS Managers in the UK represents a step change in the process of evaluating not only SLSs themselves but potentially also the school libraries they serve.

For the first time a process has been worked out that can enable data already collected to be used purposefully to relate to the agreed impact areas and objectives of SLS work across the UK. In addition to this, the framework enables the collection of quantitative data from each SLS, working in tandem with its local schools. This data is collected by agreed processes, depending on the age group of the students, the nature of activity being evaluated, and the main facilitator of the activity and collector of the evidence. Whatever the intrinsic differences in SLSs themselves, the questions or the framework for the activity are the same, so that, for the first time results from a number of different SLSs can be combined to give a coherent and generalizable conclusion for each agreed impact area.

This is a tremendous advance from the one-off surveys of previous decades (dare one say centuries) that have never yielded sufficient data for meaningful analysis across the UK as a whole (except where they have been conducted at great cost). It also means data can be shared even from services that are structured quite differently in terms of the way they are delivered to schools.

ToC appears to offer a robust framework focused on the aims and objectives of SLSs across the UK. The bonus of this framework is that it also brings school libraries to the table to share the fruits of the resulting evaluation, whose librarians individually have also struggled to assemble data sets or qualitative data without incurring a great deal of expense.

The use of the process is still new and work is continuing to encourage regular and consistent take-up of evaluation exercises within the framework. It is also hoped that SLSs will in turn work with school librarians and teachers to extrapolate relevant results from the data to relate to their outcomes and objectives. The results of this pooling of evaluation can only be beneficial and strengthen the case for school libraries and SLSs at a time when every proof of value could be crucial to the survival of the sector as a whole.

References

ActKnowledge (2011) Theory of Change basics. ActKnowledge, New York. [2019-05-15] Available at: http://www.theoryofchange.org/wp-content/uploads/toco_library/pdf/2011_-_Montague-Clouse_-_Theory_of_Change_Basics.pdf

ASCEL (2003) Secondary School Library National Survey and Benchmarking General Report – unpublished.

ASCEL (2013) SLS services 2013 summary - unpublished

ASCEL (2016) Summary of SLS Survey Autumn 2015 – unpublished.

Creaser, C and Maynard, S (2005). A survey of library services to schools and children in the UK 2004-05. LISU, Loughborough.

Greene, J.C. (2012). "Engaging Critical Issues in Social Inquiry by Mixing Methods." *American Behavioral Scientist*, *56*(6), 755-773. https://doi.org/10.1177/0002764211433794

Greene, J.C. (2015) "Evaluation as a socio-political intervention." Spazio Filosofico, http://www.spaziofilosofico.it/wp-content/uploads/2015/02/Greene.pdf

Markless, Sharon et al. (2000) Schools Library Services: from survival to growth? Library and Information Commission Research Report 49 Twickenham, Middx.: IMA for the LIC 2000 ISBN: 0-9538432-3-8.
http://www.informat.org/pdfs/schools-library-services.pdf

Markless, Sharon (2018) Evaluating impact [a workshop presentation to SLS Managers, January 2018].

Mayne, John (2012). "Contribution analysis: Coming of age?" *Evaluation*, 18 (3), 270 – 280. Available at: http://dx.doi.org/10.1177/1356389012451663

Mayne, John (2015). "Useful theory of change models". *The Canadian Journal of Program Evaluation*, 30 (2) 119-142 [2019-05-15] Available at:
https://jmss.org/index.php/cjpe/article/view/31062/25218