Understanding Libraries

Cornwall Library Service customer analysis

23rd December 2010

Community Intelligence,
Chief Executives Department
Understanding libraries

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Background

1. This report was requested by the Director of the Communities Directorate in order to improve our understanding of libraries in Cornwall. It is intended to support the Library Service Review, and ensure that evidence underpins any decisions about changes to service delivery.

2. In February 2010 the Community Intelligence Team were offered analysis of library service data by Fujitsu, to allow them to demonstrate their customer insight capabilities. The team worked with the library service and Fujitsu to scope the work and support the analysis, which resulted in recommendations on how Cornwall Library Service could attract new customers.

3. The findings of the Fujitsu project highlighted key drivers of branch library use:
   - Living close to a library, on average within 3km.
   - Typical library Users; better off families, people with children, early retirees
   - People less likely to use libraries; lower income families, low income elderly, young singles.

4. Subsequent to this, public sector spending cuts were on the horizon. It was agreed that the recommendations would be considered as part of a review of the way the library service is provided in Cornwall.

5. The areas of focus for the project were agreed as:
   - The travel patterns for people using branch libraries
   - Relative borrowing levels and catchments
   - Analyse data on renewing books online and over the telephone.
   - Visualise service delivery for the mobile library service provision and understand customer numbers.
   - To produce data profiles for branch library.

As this work forms part of the wider review of the library service, this report does not make recommendations.
Key Findings

Libraries in Cornwall operate in different ways, to a certain extent driven by the way communities function.

- Large towns draw from a wider catchment, eg. Truro, Camborne/Redruth, Falmouth/Penryn, Newquay, Penzance, St Austell.
- Some smaller towns have a large catchment and support neighbouring settlements, eg. Bodmin, Bude, Helston, Launceston, Liskeard, Wadebridge.
- Saltash, Torpoint and Hayle are largely self-contained in terms of their catchments.
- Village libraries have smaller catchments but may support neighbouring communities, eg. St Agnes has a relationship with Mount Hawke, Perranporth with Goonhavern, Padstow with St Merryn.
- Some libraries have lower borrower numbers and smaller geographical pull, eg. Camelford, St Columb, St Just, St Keverne, St Dennis and Upton Cross. Changes in service delivery in these communities may have a wider impact outside of the library service. Where few other facilities exist locally and it may viewed as important to sustaining local presence of facilities within the community.
- Libraries in north and east Cornwall and Helston support users in rural areas, eg. Helston, Bude, Callington, Launceston and Lostwithiel. Changes to services in these areas may have a knock on impact for rural communities.

Distance is a key driver in library use. For most libraries, borrowers come from the immediate locality.

Falmouth and Penryn have overlapping catchments, meaning that people from both areas use both libraries. Conversely, there isn’t much overlap between Camborne and Redruth, indicating that most users the libraries are from the immediate town.

Libraries in schools have a different profile, more younger users, limited opening hours and lower borrowing levels, eg. Upton Cross and St Keverne.

Large villages that are geographically remote from branches have higher mobile use. These communities may present opportunities for alternative service provision, eg. Millbrook, Probus and Stithians.

Libraries on the border, eg. Bude, Callington, Launceston, Saltash and Torpoint have a proportion of users from Devon. A proportion of users from Cornwall are also likely to use Devon libraries. Any changes to these libraries, both in Cornwall and Devon, should assess the impact on cross border users.
Targetting use of online and telephone renewal services to more affluent and rural library service users has potential to reduce costs and increase convenience.
Travel patterns

It was established by the Fujitsu project that proximity to a library is a key driver of usage, with an average distance travelled of around 3km. However locally it was recognised that this is an average libraries differ in the way they operate.

In order to understand this issue a method used by Robert Radburn and Jason Dykes in their work ‘vizLib: Developing Capacity for Exploratory analysis in Local Government Visualizaton of Library Usage Data’.

This methodology was adapted to tools available locally, but follows the same principles as the ‘quartile plots’ where concentric circles are used to show the distances travelled by the closest 25%, 50% and 75% of borrowers.

- The first step was to look at how far people travelled, calculated in a geographical information system based on the home postcode of the library user against the postcode of the library.
- This was then sorted and divided into equal breaks, breaking the data for at 25%, 50% and 75% distance marks.
- These buffers were then mapped using a Geographical information System.
The map shows the broad pattern of distances travelled by most people borrowing from the library.

Where the circles are larger this indicates a bigger geographical draw, specifically; Truro, Wadebridge, Helston, Launceston, Callington and Liskeard. These towns have a role as service hubs and therefore any changes to service will affect others outside of the immediate catchment.

Likewise those with the smaller catchments, St Dennis, Fowey, Saltash, Par and St Ives are more likely to have a more localised impact should changes be made to the service.

These findings are reflected in other strategic assessments:

‘Place-based analysis reinforces the long standing message that Cornwall’s communities are very varied and the delivery of services needs to be flexible to different needs.’

Understanding Cornwall 2009-10
Key messages for Cornwall

Falmouth and Penryn have overlapping catchments; with people from both areas using both libraries. Conversely there isn’t a great deal of overlap between Camborne and Redruth, indicating that despite their geographical proximity, most users come from the immediate town.

Relative borrowing levels and catchments

Borrowing is a key function of the library service, and understanding how these levels differ helps understand how many customers would be affected by changes to service delivery. The map below is intended to provide a relative comparison of borrowing levels, however as libraries perform additional functions, specific numbers have not been included.

Borrower levels cannot be directly compared in isolation, as the populations of towns differ, therefore a library may lend to a larger proportion of the community.
This method in isolation is not comparing like for like, comparing borrowing for a large town and a small village does not take account of the relative importance of that facility for the community.

To calculate this requires a catchment to be defined. This has been calculated by assigning borrowers to geographical units called LSOAs, and understanding where the majority of customers use a certain library.
The map shows that there is no simple way to define a catchment. Certain areas, marked in hashed lines on the map, have a relationship with more than one library, for example the area on the north coast near the top of the map is likely to use Camelford, Bude or Launceston. Darker areas are those where 80% of borrowers used the same library.

Using this method it is possible to identify which areas have a lower percentage of the population using a library, darker colours indicate a larger proportion of the population have used a library during 2009/10.
The map shows that there are fewer users in the central Cornwall area, and in the Roseland and Lizard areas. There are also some indications that deprived communities are less likely to use libraries, with Penzance Treneere, Redruth North, St Blazey West highlighted as having lower proportions of library borrowers – this was suggested in the lifestyle analysis conducted in the Fujitsu project.

As the data is not recorded we are unable to test this against use of the mobile library service to gain a complete picture of service use, however this link may be worth further investigation if those in deprived areas are defined a key target group.
Younger borrowers

Young people are a key audience for the library service. The pattern of use changes during teenage years, with a decrease in use for secondary school aged children.

Libraries in schools, ie, Upton Cross, St Keverne and St Dennis have a different profile from other libraries, with more younger users, limited opening hours and lower borrowing levels.

Telephone and web renewals

There are around 14,000 telephone renewals and 11,000 web renewals annually.

Analysis using Experian’s lifestyle classification data Mosaic™, suggests that those using the telephone and web renewal systems are more likely to be rural households, more affluent older households and younger families with above average household income.

Lower use of online and telephone renewal is found in lower income households and elderly users. The reasons for this may be because these groups are less likely to use the library service in general, or may be less likely to use these channels, preferring face to face service delivery.

Mobile Library Service

Cornwall Council operates a mobile service, which visits towns and villages in rural areas on a fortnightly schedule.

Use of the mobile service 2009/10:

- 69,400 visits
- 223,000 items issued
- 46,100 renewals.
Due to the way data is collected it is not possible to identify the overlap between mobile library users and branch users.

The service visits 646 stops across Cornwall, in around 450 settlements.

The map shows that the mobile service currently reaches all the main settlements in Cornwall.

To a certain extent use will be determined by service provision, for example if the mobile service stops in a village during daytime, it will be unlikely to attract the working age population who will be at their place of employment, and will not be available for school children in term times.

Anecdotal evidence suggests that a higher proportion of users are female, and the service caters for a more elderly clientele. Data for the Helston route also highlights that three out of four users travel less than a mile to their local stop, which may be a suggestion that distance is a key driver of library use.

Customer numbers vary significantly between stops, with some settlements having higher use than others.
Distribution of visits to mobile library service 2009/10 by settlement

Data provided by Library Service, chart created by Community Intelligence Team
Settlements defined by Helston Library Service Manager

When looked at geographically the data highlights that more populous areas tend to have more users, with fewer users in rural areas.

Mobile Library Stop visits 2009
Source: David Oldcorn, Libraries Manager

Understanding library use in Cornwall
4th January 2011
The map below shows the settlements which are most popular, defined as stops with over 700 visits per year.

These are all communities with relatively large populations that are geographically remote from branch libraries.
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Appendix - Branch profiles

Branch profiles were created to provide a broad overview of the data available for each library. During the process of understanding library usage it was quickly identified that libraries operated in different ways, with differing opening hours, service offers, and travel patterns. The profiles do not allow libraries to be compared directly in terms of borrower numbers, etc. and therefore are intended as supplementary information.

Profiles can be accessed on the Community Intelligence pages of the Cornwall Council intranet.

Cornwall Council Library Profile

Library: Bodmin
Address: Lower Town, Bodmin, PL31 1LU
Further Details on this Library: bodminlibrary.cornwall.gov.uk
Opening Hours: Monday 9:30 to 5:30, Tuesday 9:30 to 5:30, Wednesday 9:30 to 5:30, Thursday 9:30 to 5:30, Friday 9:30 to 5:30, Saturday 9:30 to 1:30
Borrower summary
The profile summarises data for customers who have taken more than 1 item during 2010/11. Data has been provided by the Library Service from the TRoCS Library Information System.

- Number of Borrowers: 7,294
- Number of Items Borrowed: 253,400
- Average Items per Borrower: 34.8

Distance travelled to Bodmin Library

Borrowers' distance travelled in relation to other libraries:

- Bodmin: 0 miles
- Newquay: 25 miles
- Truro: 35 miles
- St Austell: 35 miles
- Penzance: 50 miles

Public Access PC use

- Number of Users: 3,750
- Number of Logins: 10,500
- Average Use per Session: 5.1

Staff and Costs

- Staff: 4
- Annual Cost: £8,500
- Cost per Visit: £2.50
- Staff Hours per Week: 80

IT Courses

- Total Courses: 20
- Course Hours: 400
- Cost per Course: £400
- Staff's salary: £10,000

Understanding library use in Cornwall

4th January 2011
If you would like this information in another format please contact:

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