
Article:
McKenna-Aspell, J.-L. orcid.org/0000-0003-2821-3924 and Birdi, B. orcid.org/0000-0002-0002-7989 (2025) Using Q methodology in public library research: a worked example. Public Library Quarterly. ISSN 0161-6846

https://doi.org/10.1080/01616846.2025.2538392

Using Q methodology in public library research: a worked example

Joanna-Louise McKenna-Aspell[a]* and Briony Birdi[b]

[a]*School of Information, Journalism and Communication, The University of Sheffield, Sheffield, UK, ORCID 0000-0003-2821-3924;* [b]*School of Information, Journalism and Communication, The University of Sheffield, Sheffield, UK, ORCID 0000-0002-0002-7989*

* Corresponding author: Joanna-Louise McKenna-Aspell can be contacted at j.mckenna-aspell@sheffield.ac.uk

Notes on contributors

Joanna-Louise McKenna-Aspell is a postdoctoral researcher at the School of Information, Journalism and Communication at the University of Sheffield, UK. Her research is interdisciplinary, focusing on public libraries, further education libraries, social justice and equality, diversity and inclusion (EDI) in research.

Briony Birdi is Professor of Library and Information Science and Head of the School of Information, Journalism and Communication at the University of Sheffield, UK. Her research focuses on the social, political and educational roles of public and youth libraries in society.

Using Q methodology in public library research: a worked example

This paper presents the first known use of Q methodology to investigate perceptions of public library services. The authors introduce Q and guide the reader through its application, using a worked example of a recent study of user and non-user views of public libraries in England. Against the backdrop of growing concerns about closures and funding cuts, the findings demonstrate participants' reservations about the increasing diversification of public libraries and their services. Reasons are suggested for the underuse of Q in public library research, and an assessment is made of its potential value to explore perceptions of library services.

Keywords: public libraries; public perceptions; Q methodology; library users; library non-users

Introduction

In England, contemporary public libraries are a statutory service within the remit of the Department of Culture, Media and Sport (DCMS), legislated for by the Public Libraries and Museums Act 1964 (hereafter, PLMA 1964). The Act is over 60 years old, with some antiquated content. In an era of streaming services, it stipulates public libraries must stock and loan gramophone records (Section 7(2)(a)). At the same time, the Act makes no mention of digital services or digital reading materials.

Public libraries remain popular, with footfall and digital engagement beginning to increase since Covid-19 (DCMS 2024). Despite this, the sector continues to face funding challenges, cuts and closures across the country (Baroness Rebuck 2024). PLMA 1964 mandates local authorities provide a "comprehensive and efficient" library service (Section 7(1)), but this phrase is unhelpfully open to (mis)interpretation (Halpin et al. 2015; McMenemy 2009; Poole 2018). Campaigners have attempted to use this key phrase in court cases to demonstrate that local authorities' decisions to reduce or close library services mean they are failing to uphold their statutory duties (e.g., R. on the

application of Draper v Lincolnshire CC. 2014). Since the phrase is not defined, and DCMS (2013) stated it has no intention of providing a definition, these cases have been unsuccessful. Public libraries are measured against a pivotal phrase that is so old "it is ludicrous to suggest that what the term meant in 1964 remains true today" (McMenemy 2009b, 559).

This paper aims to introduce Q methodology (hereafter Q) to researchers and practitioners as an effective tool for public library research. It provides a worked example of how Q was employed to explore public perceptions of public libraries in England, and the adequacy of PLMA 1964 to legislate for a contemporary service (McKenna-Aspell 2023). The multi-phased study used Q to capture public views in a county in the southeast of England. This county provides a local authority-led public library service which, at the time of the research, was undergoing a change process driven by the need for cost-saving. The study was given ethical approval by the University of Sheffield Information School (Ethics Application Reference Number 036453). All participants were anonymized and gave informed consent for the research and subsequent publications. The study investigated four research questions:

(1) What are public perceptions of public library services in England, both user and non-user?
(2) How do different stakeholder groups define public libraries: the public, central government, local government and the public library sector?
(3) How do these different stakeholder definitions compare?
(4) To what extent do the public and stakeholder views of public libraries correspond to PLMA 1964?

Q was employed in the second phase to answer the first research question and to generate material which supported the exploration of the final three questions. Since the

use of Q in library research is rare, the paper introduces the practicalities of using Q and explores what Q can do for public library research by drawing on its use in McKenna-Aspell's (2023) study into public perceptions of public libraries in England.

Public libraries in England

To contextualize the research and how Q was used, this section introduces the public library landscape in England and defines library use and non-use as employed in this study.

What are public libraries?

In England, public libraries are statutory services funded and managed by the local authority. Some are commissioned by local authorities to be operated by third parties, like trusts or charities. Decisions about public library services are made by local authorities, but they are superintended by a Secretary of State (PLMA 1964), currently the Secretary of State for DCMS. This decentralization is intended to allow for a local approach, responding to community needs (Department for Communities and Local Government 2011, LGA 2017).

Despite being a statutory service, there is no ring-fenced funding from the central government for public libraries. Instead, local authorities are expected to make funding decisions related to public libraries whilst balancing local priorities (DCMS 2025). At a national level, ACE (Arts Council England) is the arm's-length body for libraries and assumed this responsibility from the more specialized MLA (The Museums, Libraries and Archives Council) when it was disbanded in 2010.

What is the purpose of public libraries?

Three dominant views of the purposes of public libraries emerge across literature. First,

some literature contends that libraries are a fundamental human right, emphasizing public access to information for educational, cultural, and personal development (CILIP n.d.; Gill et al. 2001; IFLA 1999). Public libraries are not just the storage of a collection; they are key to information access (McMenemy 2007).

Second, there is literature that asserts public libraries should center on and be accountable to the user (Fletcher, 2019; IFLA 1999; Lankes, 2016). Public libraries should foster an evolving relationship with their communities, to cultivate continuous improvement and sustainability (Lankes, 2016), and so they adapt to meet contemporary needs.

The third view presented in the literature is that a public library's role should extend beyond individual information needs to broader societal responsibilities, including social inclusion, empowerment, and lifelong learning (Chowdhury et al., 2008; CILIP 2018, Libraries Connected n.d.; Sieghart, 2014). Local and central government view libraries as the "front door" for many other services (LGA 2017, 33) because they are "more than" a loaning service (DCMS 2017a, section 2.3). This perception has met criticism for encouraging "mission drift" (Goulding 2013, 482) or a "confusion of vision" (Coates 2019, 14).

What are library users and non-users?

Defining library users and non-users was essential for exploring their perceptions in this study. ACE has presented present library users as visitors and library non-users as non-visitors (Fujiwara et al. 2015). More expansively, DCMS (2016b) reports on library users as adults who have used a public library service in the last 12 months: visiting a library building, accessing a mobile library, using a library website, calling or emailing a library, using library outreach services or attending a library event. This definition acknowledges that libraries exist beyond the boundaries of their buildings. The

approach of ACE's predecessor, MLA (2010), was to consider users as those who self-defined as using a public library in any way in the last year, lapsed users as library members who had not engaged with the service for 12 months, and non-users as those who do not self-define as library users and/or had not used the service for 5 or more years.

The present study worked with adult participants, assuming the DCMS definition of library use but broadening it so that a library user was any adult who had engaged with the service in the last five years. This is because they would have contemporary experience upon which to draw. Library non-users were defined as adults who had not accessed any part of a public library service for over five years.

What is the current public library landscape in England?

The perception of a service in crisis (Appleton et al. 2018) is evident across the literature. There are reports of falling footfall (DCMS 2024; McCahill et al. 2020), disagreements about the benefits of service diversification (Casselden et al. 2019; Coates 2019; Fletcher 2019; Goulding 2013; Usherwood 2007), concerns about the public library "funding merry-go-round" (Fletcher 2019, 579), all underpinned by a long-reported "severe financial situation" (Sieghart 2014, 4) which has only worsened.

Scarcity of funding and resources is not limited to public libraries. NAO (National Audit Office) concludes that local authorities across England are facing "significant and ongoing financial pressure" (2025, 6). A Section 114 indicates a local authority predicts its expenditure is going to unlawfully exceed its income (Hoddinott 2023). Since 2018, seven local authorities have reported a Section 114, with 44% of single-tier and county councils concerned they will follow suit by 2027 without exceptional financial support (NAO 2025, 12). Increasing demand with decreasing

resources means local authorities are expecting further cuts to all areas, with over a fifth of local authorities planning to cut library services (NAO 2025, 10).

Whilst the position for libraries seems "bleak" (Hariff and Rowley 2011, 346), or "fragile" (Casselden et al. 2019, 874), the authors posit that the way to prevent "extinction" (Coates 2019, 3) or a "slow lingering death" (Goulding 2013, 248) is to explore how best to meet public needs with the scarce resources available. When the crisis has been hanging over public libraries for so long and is part of a much broader problem for public services, it may be time to accept it as the new norm. So, to avoid the public being "given the service that it has been decided they need, rather than that they want" (Boughey and Cooper 2010, 197), they must be continually involved in what public libraries provide and how.

Using Q methodology to explore public perceptions of public libraries in England

The second phase of the present study focused on directly engaging with the public and addressing Research Question 1: what are public perceptions of public library service in England, both users and non-users? Q was employed because it enables the researcher to view the topic (public libraries) through the participants' eyes (Watts and Stenner 2012) by relinquishing "some of the power to define what constitutes the stories being told" to the participants (Curt 1994, 26). As such, it was an effective tool for the research project which deliberately sought to foreground public voices in a topic where they are frequently overlooked (McKenna-Aspell 2023).

The authors are keen to share Q with public library researchers because, to date, there are limited published examples for library-focused research. At the time of writing, the authors could find just six studies but none specifically relate to public

libraries in England, making this research unique (Chen 2008; Kelly and Young 2018; McKenna-Aspell 2018; Shrimplin et al. 2011; Young and Kelly 2017; VanScoy 2021).

An introduction to Q

Q was presented by William Stephenson in 1935 in *Nature*, when he identified the need for an objective and systematic approach to studying subjective views (Watts and Stenner 2012). Q is a tool which enables researchers to explore intra-individual perspectives, by highlighting the relationships within and between participants' views of a subject or issue (McKeown and Thomas 2013). As a qualiquantological[1] method, a strength of Q is the transparency of its processes in capturing and presenting subjectivity (Gauttier 2017; McKeown and Thomas 2013). Unlike grounded theory, which is inductive in nature and seeks to create broad theory from data, Q is a structured method that captures and interprets focused viewpoints and patterns withing a specific group.

In brief, participants are presented with several statements or items which represent the entirety of a topic. They are asked to sort these through a "modified rank-ordering procedure in which stimuli are placed in an order that is significant from the standpoint of a person operating under specified conditions" (Brown 1980, 195). Through a process of covariation, the researcher elicits comparisons between individuals' perceptions to reveal groups of people with shared viewpoints about a topic or issue. Stephenson designed the Q sorting process to be combined with Q technique factor analysis "to make *subjectivity* his principle research focus" (Watts and Stenner

[1] Drawing on the approaches of both qualitative and quantitative research

2005, 68). This is a key way in which Q is different to other qualitative or quantitative methods.

Q is designed to focus on "a single proposition" that answers one of a number of question types (Watts and Stenner 2012, 56): causes and reasons; definitions; reactions, responses or policies; representation and value; contextualized understandings; or action, conduct or potential resolutions (Watts and Stenner 2012; Curt 1994). The Q studies in this research focused on representation: rather than what public library services are currently like, participants explored what they "should ideally" deliver (Watts and Stenner 2012, 55).

Q is rooted in "socially shared viewpoints and bodies of knowledge" (Watts 2009, 36). Like other qualitative methods, Q relies on blending researcher and participant interpretations and viewpoints (Blandford, Furniss and Makri 2016, 63) to analyze the outputs and discover "truth-value in subjectivity" (Goldman 1999, 594). Q embraces the understanding and subject knowledge the researcher brings to the process of interpretation.

There are four stages when using Q: designing, administering, analyzing and interpreting. The paper will now provide an explanation of how to undertake each of the four stages. Each stage has examples, results and interpretations from McKenna-Aspell's (2023) research about public libraries to exemplify the process. The authors intend for this to be both illustrative and instructive for researchers who would consider using Q in library research.

Stage one: designing

The design process begins with establishing the concourse: the total body of opinions or knowledge on the topic of focus. The concourse can be generated through interviews, literature, information, prior research, or even common knowledge. It can be formed of

statements, clauses, phrases, words, objects, or images.

From the concourse, a Q set is extracted: the finalized set of items to be sorted by participants. Where the concourse is the "overall shared knowledge and meaning" of a topic (Watts and Stenner 2012, 33), the Q set is a balanced, representative and manageable sample thereof (McKeown and Thomas 2013). An unstructured or structured approach is used to create the Q set. A structured approach means an imposed categorization of the concourse, based on existing theory or researcher knowledge (Watts and Stenner 2012, 59). Whereas an unstructured approach demands more "more fluidity" (Watts and Stenner 2012, 59), allowing a "structure to *emerge*" from the data (Brown 1980, 189).

There is no rule about the size of the Q set. Some researchers suggest between 40 and 80 items (Curt 1994; Watts and Stenner 2012) and others between 25 and 90 (Watts and Stenner 2012). A recommendation is to generate more Q set items than needed before distilling them into a smaller set to prevent "being overly restrictive or dismissive of possible content at too early a stage" (Watts and Stenner 2012, 61).

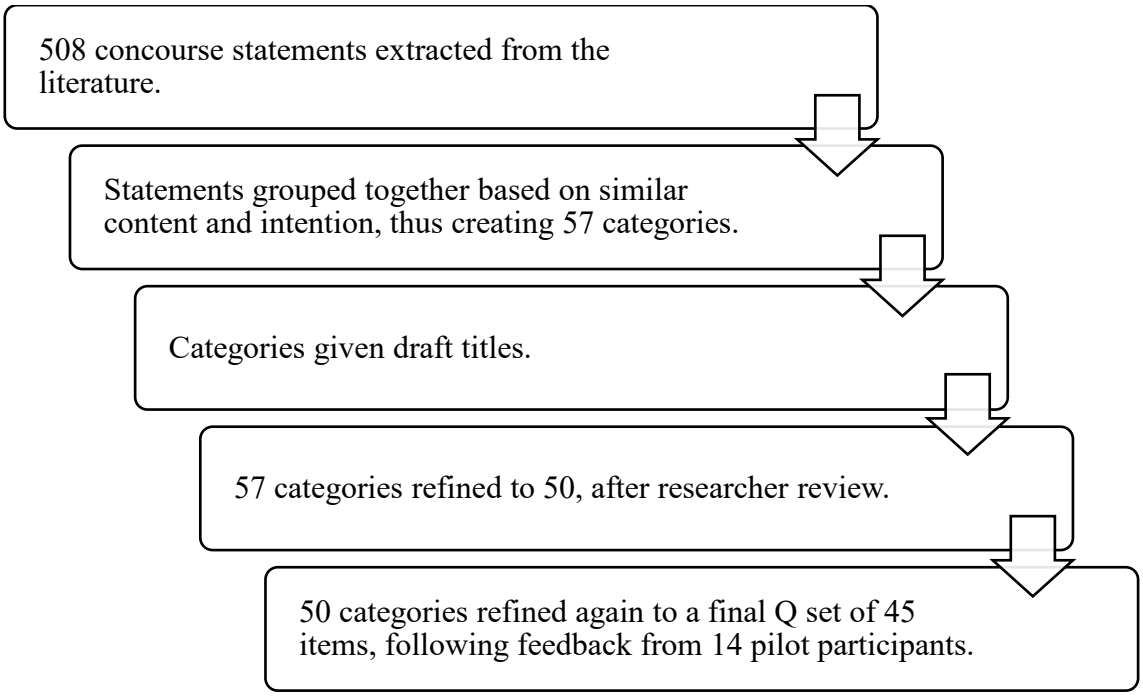
The present study captured participants' perceptions of public library services in England. The concourse, therefore, was based on the way in which public libraries and their services have been described in existing literature written about and by the sector, since 2009. It featured 508 statements gathered from sector bodies, library services, central government, the Local Government Association, PLMA 1964, and academic publications. Similar ideas from multiple sources were merged unless nuance or meaning were notably different. For instance, Table 1 shows examples about education and learning, illustrating how ideas which look superficially similar were kept separate at the concourse stage because of subtle differences.

Table 1. Examples from the concourse.

Statement
Deliver opportunities for library users to further their education
Deliver opportunities for library users to learn new skills
Offer adult training courses and support for employability (e.g., job searching, CV writing, small business creation)
Offer education opportunities
Offer lectures and events
Promote informal learning
Promote learning
Provide access to education, work, social and community networks
Provide language books and classes
Provide learning resources

Whilst participants were asked to consider the full public library offer in England, it was also important that they received a manageable Q set. An unstructured approach was used to avoid applying *a priori* theory about how public libraries are described. Figure 1 illustrates how the concourse statements were filtered to create and test a final Q set of 45 items. The final Q set is available as part of the results presented in stage three.

Figure 1. Designing the final Q set.



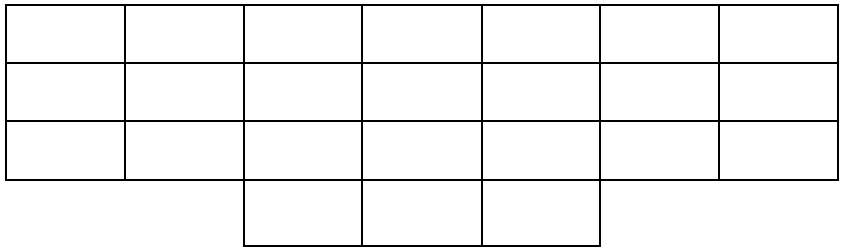
Stage two: administering

Q is a "process of *relative* evaluation" (Watts and Stenner 2012, 88) in which participants indicate what they value as meaningful or significant. The process requires participants to rank each item in relation to all other items by placing them onto a distribution model. The final distribution or placement is called a Q sort.

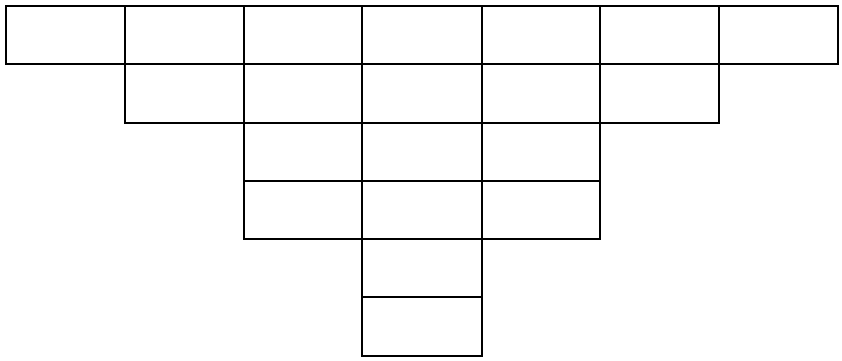
In Q, the distribution ranges from *most* to *most*, never *most* to *least*. In this way, each end of the distribution represents a strong, subjective value and the middle represents a neutral anchor from which information "bulges out or distends" (Stephenson 1953, 196). For participants who are familiar with a topic, Brown (1980) recommends a platykurtic model (Figure 2). For participants who are less familiar with a topic, a leptokurtic model permits more room for uncertainty (Figure 2). Moreover, a fixed, symmetrical model ensures participants have a similar experience (Watts and Stenner 2012), whilst forcing relativity so participants "devote due deliberation and discrimination" when placing items (McKeown and Thomas 2013, 66).

Figure 2. Distribution model types.

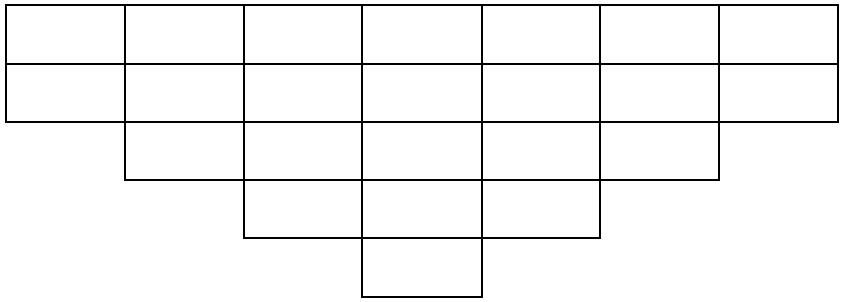
Platykurtic models are flatter, offering more spaces for participants to show agreement and disagreement with more familiar topics.



Leptokurtic models are steeper, offering more spaces for participants to show neutrality or uncertainty with unfamiliar topics.



Mesokurtic models are a compromise, offering some space for strong views and some space for neutrality.

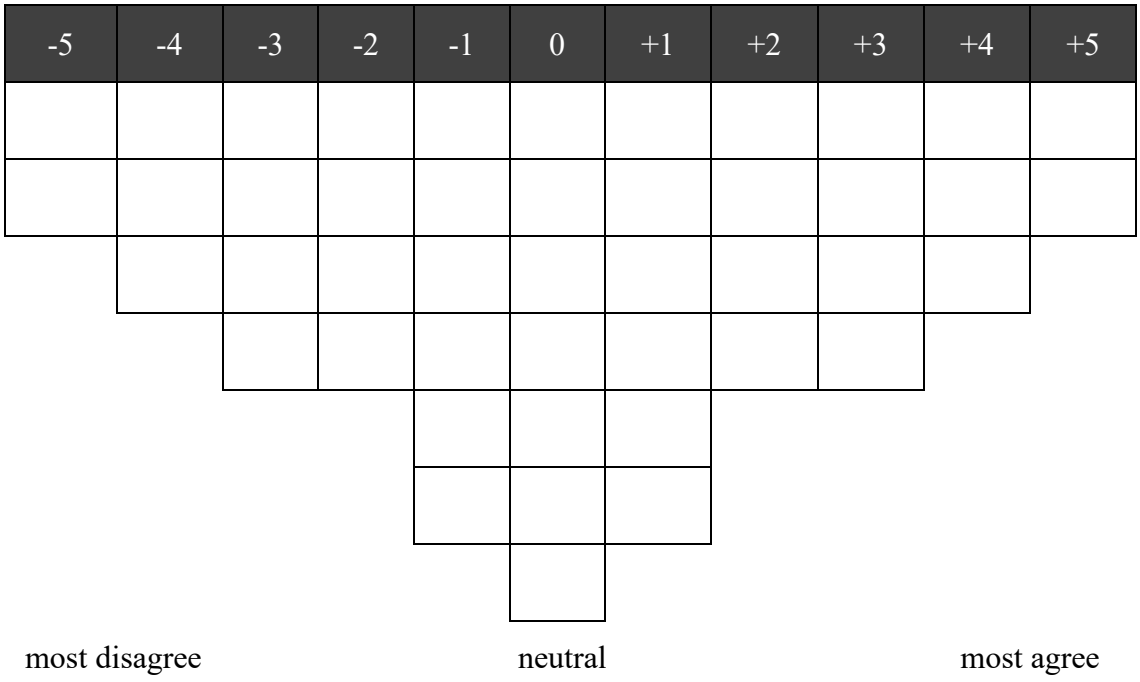


The present research involved two concurrent Q studies, one for library users (Q Study 1) and one for library non-users (Q Study 2); ergo, a fixed model was provided to ensure fewer uncontrolled variables between the studies. Moreover, a mesokurtic model (Figure 2) was employed as a compromise because the library users were more likely to be familiar with public library services than library non-users.

During Q sorting, participants place the Q set items onto the distribution model according to a statement of condition that captures the viewpoints of a topic. In this research, participants were asked to consider each Q set item as an ending to the sentence opener: *Public libraries in England should…* The poles were labelled *most disagree (-5)* and *most agree (+5)*. Numeric position headers for columns supported the

participants as they made decisions about ranking items in relation to one another (Figure 3).

Figure 3. The distribution model.



Q confirms that perceptions exist, but not the extent to which they are held, by establishing the "range of viewpoints in the concourse" rather than "proportional representativeness" (Gen 2020, 11). As such, participants are referred to as the P set because it is the Q set which forms the sample being tested. The P set should include a range of people who are likely to "express lots of different viewpoints" on the topic (Curt 1994, 122). The present study used stratified sampling to involve two participant groups. Adults (18yrs+) who lived, worked or studied in the county were invited to participate. The only recorded characteristic was their identity as a library user (Q Study 1) or library non-user (Q Study 2) because this addressed a gap identified in the literature. To mirror the ratio reported in the DCMS' (2020) *Taking Part survey*, 40% of participants (n=27) were library users and 60% non-users (n=41).

Q is usually carried out in person with physical cards (Watts and Stenner 2012, 87). Due to COVID-19 restrictions, web-based software was employed with the present study's participants: Q-Sort touch tool (Pruneddu 2024). An advantage of software is that it standardizes the experience for participants; this was particularly important considering there were two concurrent Q studies. To address potential issues with remote methods, such as clarity of instructions, the project website (McKenna-Aspell 2020) featured videos and images demonstrating each stage of the Q sorting process.

The final part of the process for participants is a post-Q Sort interview. This helps the researcher to better understand their choices, providing a "fuller, richer and more detailed understanding of each participant's Q sort" (Watts and Stenner, 2012, 83) which in turn supports the interpretations of the final factors. As the Q studies in this research were carried out online and anonymously, a full interview was not possible, but the Q-Sort touch tool permitted two post-sort questions. The participants could see their two +5 and two -5 items alongside the questions, and they were provided free-form text boxes for responses. Table 2 presents the question wording, purpose and number of respondents.

Table 2. Post Q sort question information.

Items on display	**Question**	**Rationale**	**Q Study 1 responses**	**Q Study 2 responses**
The two items ranked at -5	1) Can you explain why you placed these statements in 'most disagree'?	This question asks participants to articulate their reasoning for the services and features placed in -5.	22/27 participants responded	25/41 participants responded
The two items ranked at +5	2) In your opinion, what is the core purpose of a public library service?	Whilst viewing the statements placed in +5, this question asked participants to consider what they perceive a public library service should do and be, overall.	21/27 participants responded	28/41 participants responded

Stage three: analyzing

Participants' Q sorts serve as the datasets, and factor analysis distils them into patterns of shared perspectives, known as factors. According to Young and Kelly (2017), R methodology is often used in social sciences to assess traits or variables across populations. In contrast, the lesser-known Q essentially inverts R methodology: while R focuses on analysis by variable, Q focuses on analysis by person.

In Q, factor analysis can be undertaken using "purpose-built" statistical software (Watts and Stenner 2012, 94), such as PQMethod (Schmolk 2014) or Ken-Q Analysis (Banasick 2013). However, no software can provide a perfect factor solution because the process requires researchers to make decisions based on sound statistical reasoning, exploratory logic (Watts and Stenner 2012) and "common sense" (McKeown and Thomas 2013, 54). Whilst there is no definitive approach to factor analysis, Watts and Stenner (2012) offer useful guidance, particularly for researchers who are new to the method. Their advice is to center the data on participants' perspectives, ensure decisions align with the research aims, maintain methodological rigor, and present findings which are clear and beneficial to the audience (Watts and Stenner 2012, 96).

Factor analysis is iterative, often involving trial and error. Watts and Stenner (2012) recommend initially extracting one factor for every six to eight participants and experimenting from this point. As the analysis proceeds, researchers can refine their approach, exploring different factor solutions until they find the most effective.

Factor analysis is also reductive because it summarizes complex data as shared perspectives. Therefore, not all Q sorts (individual responses) are included in the final factor solution; their inclusion depends on statistical criteria and abductive reasoning. The software creates a correlation matrix, which essentially maps correlation coefficients between Q sorts to highlight possible factors. A factor solution is

considered viable when it accounts for at least 35% of the total variance of the Q study (Watts and Stenner 2012, 105), which indicates a significant representation of the viewpoints captured in the data. In addition, because a factor represents a shared view, it is only deemed viable when two or more Q sorts load significantly onto it.

Alongside variance and factor loading, other statistical criteria can be used to make decisions on the final factor solution, such as eigenvalues and the number of Q sorts loading significantly onto a factor (Kelly and Young 2017, 173). The authors signpost the work of Watts and Stenner (2012) for clear and accessible guidance on the process of factor analysis for first time users of Q.

After extracting factors, they undergo a process of rotation to improve clarity. Factor rotation is used to refine the alignment of Q sorts with factors, and the analytic software can automate a varimax rotation. However, researchers may also manually adjust factors to achieve better groupings. A post-rotation correlation matrix can reveal if too many factors have been extracted, indicating that some factors are too similar and should be merged.

The purpose of this research was to foreground public voices, particularly those of library non-users, in the discussion about the public library landscape in England. Therefore, a key aim of the factor analysis process was to include as many Q sorts as possible in the factor solution. As such, by-hand rotation was undertaken to maximize significantly loading Q sorts in Q Study 1. In Q Study 2, by-hand rotation did not increase the number of significantly loading Q sorts, so varimax rotation was used. Table 3 presents the final, post-rotation factor solution, including eigenvalues, variance and the number of significantly loading Q sorts for Q Study 1 and Q Study 2.

Table 3. Final factor solutions for Q Study 1 and Q Study 2.

	Q Study 1 factors		**Q Study 2 factors**		
	A	B	C	D	E
Eigenvalues	9.1017	1.9735	18.7317	2.2425	1.7623
Variance %	32	9	46	5	4
Total variance %	41		55		
No. of Q sorts	16	3	24	6	2
Total no. of Q sorts	19 / 27		32 / 41		

The final stage of factor analysis involves creating factor estimates: weighted averages of the Q sorts that load significantly onto each factor. Q sorts that load onto more than one factor are excluded from this stage because they do not represent a single viewpoint. The weighted averages are converted into standard scores, which are then used to create a factor array for each factor.

The factor array represents the shared viewpoints of all Q sorts that load significantly onto a factor, rather than the individual perspective of any one participant. This process ensures that the results are both reliable and interpretable, providing an effective summary of the data. Factor arrays can be presented in tabular form and as composite Q sorts. Both are useful for interpretation purposes. Figure 4 presents the factor array for Factor A (Q Study 1) in Q sort format. Table 4 then demonstrates the full factors in tabular form, as well as providing the full Q set.

Figure 4. Factor array for Factor A.

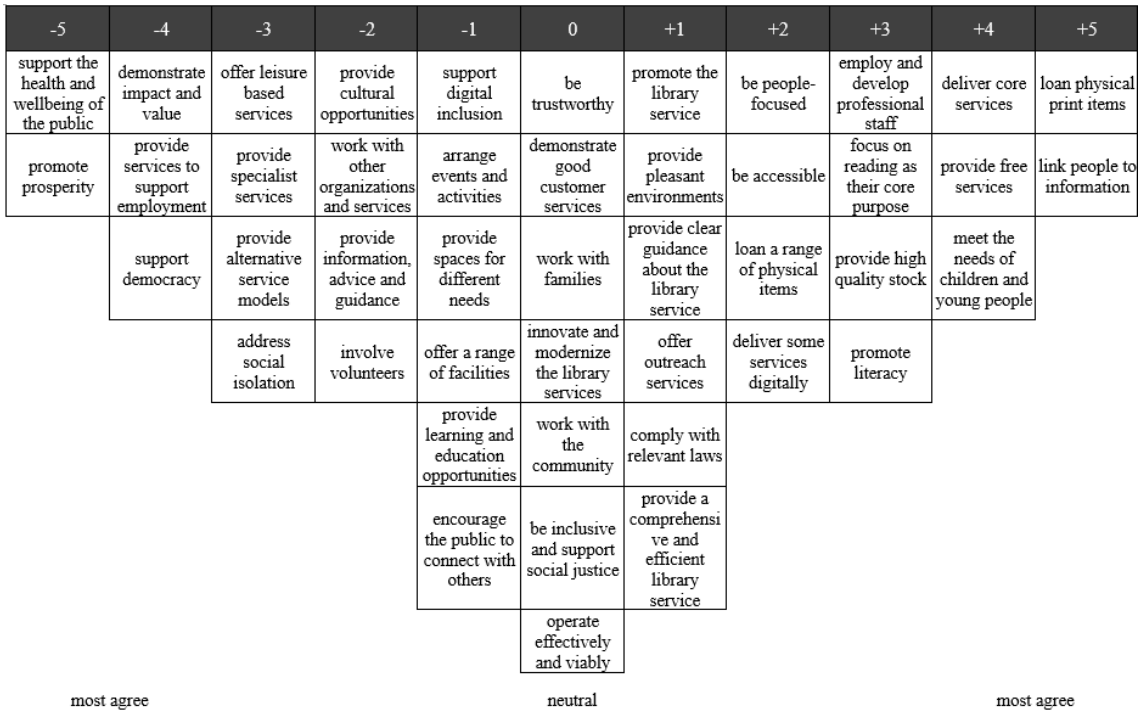


Table 4. Full factor arrays for Factors A-E.

		Q study 1 factors		**Q study 2 factors**		
No.	Item	A	B	C	D	E
1	be inclusive and support social justice	0	+5	-1	-1	0
2	provide learning and education opportunities	-1	-1	-1	-3	-4
3	promote literacy	+3	+1	+2	+3	-4
4	provide cultural opportunities	-2	0	-2	-1	-3
5	support digital inclusion	-1	+2	0	+5	+2
6	provide a comprehensive and efficient library service	+1	-4	-1	+3	-1
7	loan physical print items	+5	-5	+4	+4	+1
8	loan a range of physical items	+2	-3	+3	-3	+4
9	provide free services	+4	+1	+3	+1	+2
10	work with other organizations and services	-2	-3	-3	+2	0
11	provide high quality stock	+3	-3	+4	-1	+2
12	meet the needs of children and young people	+4	+3	+1	+1	-1
13	support democracy	-4	+1	-4	0	-5
14	work with the community	0	-1	+1	+1	-2
15	comply with relevant laws	+1	0	-1	+3	0
16	provide services to support employment	-4	+4	-4	-4	-3
17	provide clear guidance about the library service	+1	-1	0	0	+1
18	encourage the public to connect with others	-1	+4	-1	-2	-2
19	link people to information	+5	0	+5	+4	+4

20	address social isolation	-3	+5	-2	0	-4
21	provide spaces for different needs	-1	0	0	-2	0
22	employ and develop professional staff	+3	+2	+5	+3	+1
23	offer leisure based services	-3	-2	0	-5	+1
24	be people-focused	+2	+2	+3	0	0
25	work with families	0	+4	+1	-5	-2
26	provide specialist services	-3	-1	-3	-2	-1
27	deliver core services	+4	0	+3	+1	+3
28	deliver some services digitally	+2	+1	+1	0	+5
29	provide pleasant environments	+1	0	+2	0	+1
30	offer a range of facilities	-1	+1	0	0	-1
31	promote the library service	+1	-1	+2	+2	+2
32	support the health and wellbeing of the public	-5	+3	-3	-4	-5
33	be accessible	+2	+3	0	+4	-1
34	demonstrate good customer service	0	-2	+2	+1	+3
35	focus on reading as their core purpose	+3	+3	+4	+2	-2
36	arrange events and activities	-1	-1	0	+1	0
37	involve volunteers	-2	-2	-5	-1	+3
38	provide alternative service models	-3	-4	-4	-2	+4
39	operate effectively and viably	0	-2	-2	-1	+1
40	be trustworthy	0	+2	+1	+5	-3
41	provide information, advice and guidance	-2	-5	-1	-4	-1
42	demonstrate impact and value	-4	-4	-3	-1	+3
43	offer outreach services	+1	+1	+1	-3	0
44	innovate and modernize the library service	0	-3	-2	+2	+5
45	promote prosperity	-5	0	-5	-3	-3

Stage four: interpreting

In factor interpretation, the researcher must "facilitate a reasonable explication of the data" produced by the preceding factor analysis (McKeown and Thomas 2013, 14). Like other qualitative methods, interpretation reveals patterns in the data to tell its "story" (Albright et al. 2019, 142).

For interpretation purposes, the factor arrays created during factor analysis function as visual aids for the "conceptual" process of making meaning from and finding patterns in the data (Albright et al. 2019, 143). While there is readily available guidance for designing, administering and analyzing Q studies, there is far less support

for factor interpretation (Watts and Stenner 2012, 147). Watts and Stenner's (2012) book, *Doing Q Methodological Research*, offers unambiguous guidance on how to tackle interpretation and is strongly recommended by the authors.

Watts and Stenner (2012) introduce crib sheets as a tool to explore factor arrays. They recommend recording several qualities from each factor array: the highest and lowest ranked items, items ranked higher or lower than in any other factor, and items with significant contributions to the factor's viewpoint (Watts and Stenner 2012, 153). Based on researcher judgement, additional information can be added to the crib sheet. Essentially, the crib sheet forces the researcher to review and consider each item in turn. This is an important part of the process because "every single item offers a potential sign or clue that deserves your full attention and investigation" (Watts and Stenner 2012, 155). The crib sheets and factor arrays also enable comparison of the similar and different item placements between factors, which can help with interpretation as they can "act as a fulcrum for the whole viewpoint" (Watts and Stenner 2012, 155).

In addition to the practical advice of crib sheets, Watts and Stenner (2012, 155-158) provide guiding principles for interpreting factors: undertaking an abductive approach; interrogating the item positions; posing hypotheses about the factor arrays and confirming them with post-sort interview information; asking questions; reflexively moving between reviewing individual items and considering the entire factor array; putting yourself in the participants' shoes.

The final factor interpretations are written in a narrative or commentary style. They are supported by qualitative comments from the participant interviews or responses, and include item rankings for clarity. The narrative interpretations "must *express* what was *impressed* into the array" (Watts and Stenner 2012, 163).

As with other qualitative methods, critics may argue that any meaning could be drawn from the data. Watts and Stenner (2005, 2012) rebut this with four arguments. First, as a qualiquantological method, the participant contributions are captured and "frozen" through the Q sorting and factor analysis (Watts and Stenner 2005, 85). Therefore, interpretations can be clearly traced back to participant data. Second, although it is possible that different researchers could interpret the data differently, the factor analysis process and documented outcomes mean that weak interpretations or misinterpretations can be readily challenged (Watts and Stenner 2005, 85). Third, the abductive approach demands that the researcher explores the data thoroughly, both up close (item by item) and panoramically (whole factor array) (Watts and Stenner 2012, 153-159). Finally, combining the item-level examination with additional data, such as participant comments or interviews, means the interpretation process remains rigorous and robust (Watts and Stenner 2012, 157-158).

This study used crib sheets to interpret the Q studies' factor arrays. In addition to the qualities suggested by Watts and Stenner (2012, 153), other features were included: distinguishing items for each factor, consensus items across the factors within each Q Study, and the post-sort question responses for each participant whose Q sort loaded onto the factor. Moreover, each crib sheet also included a list of all the Q sorts which loaded onto the factor in order of its weighted score, so the highest weighting first and the lowest weighting last. This enabled the researcher to interpret particularly challenging features of a factor array by reviewing the strongest loading Q sorts for insights and associated participant comments. Large, hard copy versions of the factor arrays were also created so that they could be hand-annotated. This created a proximity to the data so that the factor array could "govern proceedings" (Watts and Stenner 2012, 148) and it allowed for ideas, connections and questions to be recorded next to the

items, transparently documenting the interpretation process. Each annotated factor array was then considered against its crib sheet and against the other factor arrays and crib sheets.

What did Q illustrate about public views of public libraries?

Since narrative factor interpretations are "based on a full and intimate understanding" of the data (Watts and Stenner 2012, 164), they are necessarily lengthy; for instance, the full interpretation for Q Study 1's Factor A is 1300 words. For the purpose of this paper, summaries of each factor interpretation are offered instead, along with comparisons across and within the Q studies. It is worth noting that without a full interpretation and understanding of the factor arrays, no such summary would be plausible (Watts and Stenner 2012, 164). The full interpretations are reported in McKenna-Aspell (2023, 151-166).

Library user viewpoints

Q Study 1 explored the perceptions of library users (identified as U1 - U27) with a two factor solution (Factor A and Factor B) capturing 16 Q sorts.

Q Study 1 explored the perceptions of library users (identified as U1 - U27) with a two factor solution (Factor A and Factor B) capturing 16 Q sorts. In the following factor interpretation summaries, the parentheses first present the associated Q set item number and then its rank in the factor arrays. Moreover, the summaries include direct quotations from participants with their identifier. The full factor interpretations can be found in the supplemental material.

Factor A

Factor A is called "A public library service 'can't be all things to all people'". Library

users associated with Factor A primarily view the core purpose of public libraries as providing free (9: +4) access to reading materials and information (7: +5; 19: +5), emphasising the need for high-quality loanable stock (11: +3) and reading materials in all formats (28: +2). They also value promoting literacy (3: +3) and "nurturing a love of reading" (U22; 35: +3).

Factor A library users further believe that public libraries should focus on delivering core services (27: +4) rather than exceeding their "remit" (U8). For instance, they support digital services, including eBooks and eMagazines (28: +2), but feel that libraries should not be responsible for supporting digital inclusion (5: -1). They agree that libraries should meet the needs of children and young people (12: +4) but see formal education services as outside their scope (2: -1) because they are "not teaching spaces" (U4). Users appreciate practices that align with the library's core mission, such as outreach services (43: +1), but are less positive about practices that "are core services of other public bodies" (U19) such as public health and wellbeing (32: -5).

Factor A library users value the library as a space to acquire information and reading materials (7: +5; 11: +3; 8: +2; 28: +2; 29: +1) more than as space to be or to access other facilities (20: -3; 23: -3; 4: -2; 18: -1; 21: -1; 30: -1; 36: -1). Factor A library users reject the idea of a public library being "treated as a business entity" (U6) or being forced to promote prosperity (45: -5).

For library users in Factor A, public libraries should be accessible (33: +2), and staffed by knowledgeable professionals (22: +3) who "know what they're doing" (U5) rather than "nice well-meaning" (U5) volunteers.

Factor B

Factor B is called "Public libraries help 'people to meet and connect, and get assistance'". Library users associated with Factor B perceive public libraries as "spaces

for people to meet and connect" (U16), fostering human connection (18: +4) and addressing social isolation (20: +5). They value libraries as inclusive, accessible, and trustworthy services (33: +3; 40: +2) that prioritise social justice (1: +5) over legal compliance (15: 0) or operational efficiency (6: -4).

Factor B library users believe that public libraries should strive to ensure no one is left behind in society. Rather than delivering this through core services (27: 0) like book lending (7: -5) and information access (19: 0), Factor B library users believe libraries should support employment (16: +4), health (32: +3), and digital inclusion (5: +2). Professional staff (22: +2) are essential for delivering these services, rather than relying on volunteers (-2).

Libraries should improve the quality of life for individuals (1: +5; 16: +4; 32: +3; 5: +2) but not through services which rely on collaboration with other organisations, businesses or public services (41: -5; 38: -4; 10: -3; 2: -1). Factor B users do not define libraries by their spaces (29: 0; 21: 0) or physical collections (7: -5; 8: -3; 11: -3) but do value their role in reading (35: +3; 3: +1). Aspects of the public library service which are linked to commercialism or neoliberalism (42: -4; 44: -3; 34: -2; 39: -2; 26: -1; 30: +1;) are not prioritised above those which are perceived to improve individuals' lives (1: +5; 20: +5; 16: +4; 25: +4; 32: +3; 33: +3; 5: +2; 24: +2): "I understand that libraries have to run on a business model, but I feel their main role is to support people" (U16).

Comparing the library user factors

Following the full factor interpretation process, a return to the factor analysis data enabled a thorough comparison of the Factor A and Factor B viewpoints. The factors were clearly different, established through their correlation matrix which met the criteria for being below the significance threshold, and demonstrated through their distinguishing items (Figure 5).

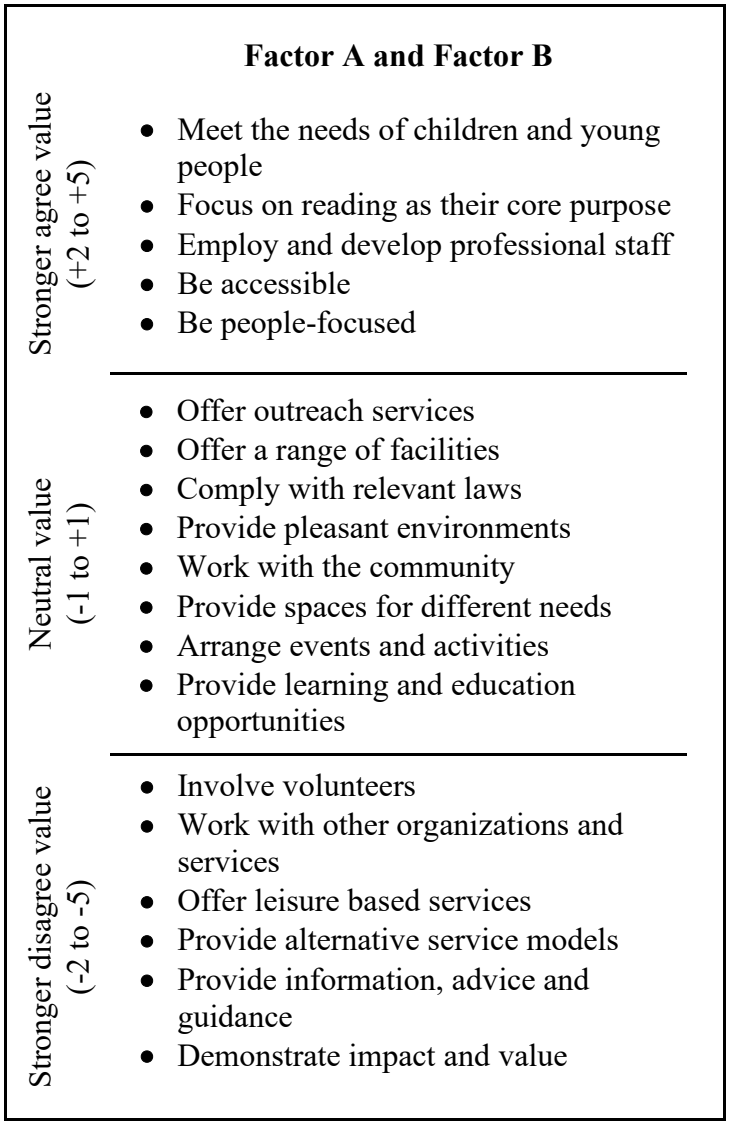
Figure 5. Distinguishing items between Factor A and Factor B.

	Factor A	Factor B
Stronger agree value (+2 to +5)	• Loan physical print items • Link people to information • Provide free services • Deliver core services • Provide high quality stock • Loan a range of physical items	• Be inclusive and support social justice • Address social isolation • Work with families • Encourage the public to connect with others • Provide services to support employment • Support the health and wellbeing of the public • Support digital inclusion
Stronger disagree value (-2 to -5)	• Address social isolation • Support democracy • Provide services to support employment • Support the health and wellbeing of the public • Promote prosperity	• Demonstrate good customer service • Innovate and modernize the service • Loan a range of physical items • Provide high quality stock • Provide a comprehensive and efficient library service • Loan physical print items

Library users in Factor A valued the tangible and traditional aspects of public libraries: core library services; the importance of physical reading materials and a high quality collection; and services which link people to the information they need. By comparison, library users in Factor B valued the more intangible or ideological aspects of public libraries: being an inclusive service which supports social justice; encouraging human connection and tackling social isolation; working with families; and helping people to improve their quality of life through services which support employment and health and wellbeing.

Despite the differences between the library user factors, there were still several Q set items which demonstrated consensus between the two, as Figure 6 demonstrates.

Figure 6. Consensus items in Q Study 1.



Library users in both factors agreed that libraries are a "statutory right" (U6) so they should not have to demonstrate their impact and value. Although there was a difference of opinion about loaning physical materials, both factors considered it essential that public libraries "spread information and literature for free" (U17) through reading and literacy based services. In contrast, leisure based services and offering alternative service models were not viewed as "core to library services" (U25).

The two factors also showed that library users considered professional staff, not volunteers, as essential to ensuring a people-focused, inclusive, accessible service that aims to meet public needs.

Library non-user viewpoints

Q Study 2 explored the perceptions of library non-users (identified as NU1 - NU41) with a three factor solution (Factors C-E) capturing 32 Q sorts.

Factor C

Library non-users aligned with Factor C believe public libraries "need professional staff" (NU27; 22: +5) because they are "trained to best help connect people to information" (NU36) and reading materials (19: +5; 7: +4; 11: +4; 35: +4; 8: +3; 27: +3). Volunteers are viewed as an undesirable substitute for paid staff (NU3; NU22; NU37) and described as "free labour" (NU3). One participant compared it to retail: "I'm sure those [libraries] run by volunteers are nice enough but they'll be the charity shop version rather than the John Lewis version. I'd rather deal with trained staff, who are reliable and knowledgeable" (NU22).

Reading is the core purpose of public libraries (35: +4), so services related to this should be prioritised (11: +4; 7: +4; 27, +3; 3, +2). Stock and loanable materials (7: +4; 11: +4; 8: +3) are important to Factor C library non-users, but they assert that it is the people who make public libraries effective (22: +5; 24: +3; 34: +2): "the core purpose of a library is to connect people to the info they need. And for that, you need professional staff" (NU3).

A positive experience should be ensured through good customer service (34: +2), free access to loanable materials (9: +3) and welcoming environments (29: +2). However, libraries should not aim to be "swanky" (NU39) with "expensive" (NU22,

NU38) add-ons that run the risk of "diluting the library service" (NU36) or "tak[ing] up staff time" (NU33)

Library non-users in Factor C argue that public libraries help people because they "connect people to information and reading materials" (NU16) not by engaging in socioeconomic, cultural or political issues (13: -4; 10: -3; 16: -4; 4: -2; 20: -2; 32: -3; 4: -1; 18: -1; 41: -1), which would be considered "dodgy ground" (NU37). They want public libraries to embrace their core business and stop "trying to be different things" (NU2).

Whilst promoting their services (31: +2) is important, library non-users in this factor do not believe public libraries should have to "defend" (NU3) themselves or "prove the value of their existence" (NU33; 42: -3; 39: -2).

Factor D

Factor D is called "'The more accessible a library is, the more people will use' it". Library non-users within Factor D believe public libraries must be "safe, neutral, and trustworthy spaces" (NU24; 40: +5; 33: +4) to attract more users (NU25). To maintain trust (40: +5), ensure accessibility (33: +4) and uphold legal, ethical principles (15: +3), libraries should employ professional staff (22: +3) rather than rely on volunteers (37: -1).

Providing access to information (19: +4) is even more important than promoting reading (35: +2) and literacy (3: +3). Moreover, in "an ever evolving technological world" (NU25), libraries must support digital inclusion (5: +5) to promote equitable access to information. However, "free" (NU24) access to physical books remains important (7: +4).

Encouraging more users is key, so libraries should promote their services (31: +2) and modernise (44: +2) to "stay relevant for future generation[s]" (NU10).

Library non-users in Factor D do not "see why they [public libraries] should have to provide more free services" (NU25) beyond those related to information access (5: +5; 19: +4) and reading (7: +4; 3: +3; 35: +2; 27: +1). They also argue that "funding for them has to come from somewhere" (NU25) but that public libraries should not have to self-fund (39: -1) or demonstrate their impact (42: -1).

Rather than offering non-reading and non-information services (23: -5; 25: -5; 16: -4; 32: -4; 2: -3; 43: -3; 26: -2; 1: -1), Factor D library non-users assert that public libraries should signpost organisations and "other places" (NU25) which provide such services because they are not the "responsibility" (NU24) or a "core component" (NU24) of a public library service.

Factor E

Factor E is called "Amazon vs. the library – Amazon is going to win". Library non-users within Factor E believe public libraries must modernise (44: +5) to "move with the times" (NU6), offering alternative models (38: +4), otherwise "Amazon is going to win" (NU6).

Because "books aren't the only way to get information nowadays" (NU29), public libraries should not only provide information (19: +4) and reading materials physically (8: +4; 7: +1) but also digitally (28: +5; 27: +3), whilst supporting digital inclusion (5: +2).

Factor E library non-users are clear that public libraries "can't be everything to everyone" (NU29), asserting that supporting health and wellbeing (32: -5), democracy (13: -5), social isolation (20: -4), prosperity (45: -3) and employment (16: -3) are emphatically "not the job of a library" (NU6).

Moreover, cultural opportunities (4: -3), safe spaces (40: -3), community engagement (14: -2), and support for families (25: -2) can be found elsewhere. Not only

do library non-users in Factor E argue these options are "provided by another service or organisation" (NU29), they are also ambivalent that it is a public library's responsibility to signpost them or work with them (10: 0).

Whilst these library non-users are clear about what is "not the job of a library" (NU6), they are less clear about its primary purpose: "they probably need to look at what their core purpose is. I don't know what it is. Which means it's not being communicated very well" (NU29).

Consequently, Factor E library non-users express the need for better promotion (31: +2) and communication (17: +1), as well as a focus on core services (27: +3) and proof of impact and value (42: +3). Moreover, Factor E library non-users maintain that public libraries should provide a good experience (34: +3) by ensuring that services are free (9: +2) and that volunteers are engaged (37: +3) to support the work of professional staff (22: +1).

Comparing the library non-user factors

Again, returning to the factor analysis data enabled a focused comparison of the viewpoints captured in Factors C to E. The comparison of noteworthy and distinguishing items across Q Study 2 indicated that each factor differs from the others in three distinct ways:

(1) views about how a public library should approach its service;
(2) views about services a public library should deliver;
(3) views about services a public library should not deliver.

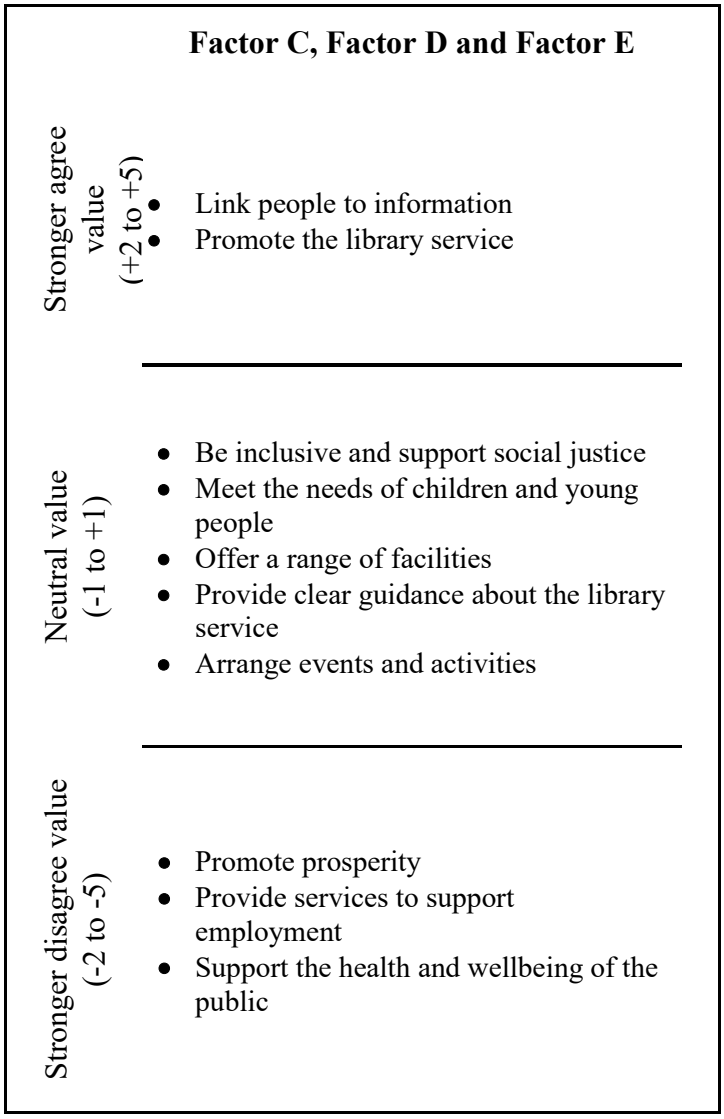
These distinctions are presented in Table 5. The brackets denote where the Q set item was ranked in the factor array.

Table 5. Distinctions between the Q Study 2 factors.

Factor	Approach	Public libraries should…	Public libraries should not…
Factor C	professional (+5)	support people by focusing on reading (35: +4)	involve volunteers (-5)
Factor D	trustworthy (+5) and accessible (+4)	support people by focusing on digital inclusion (5: +5)	work with families (-5) or provide leisure based services (-5)
Factor E	modern (+5)	stay relevant by offering digital services (28: +5)	promote literacy (-4)

Despite the very different viewpoints captured in the library non-user factors, there were still some areas of overlap, though not as many as were established in Q Study 1 (library users). Figure 7 presents the consensus Q set items across the three factors.

Figure 7. Consensus items in Q Study 2.



The Q Study 2 factors show that the library non-users in this research shared the view that a key role of public libraries is to "connect people to information" (NU36). There was also a reasonably strong consensus that public libraries need to promote their services.

The three factors also demonstrated some agreement that "it should be a professional service" (NU27) that provides positive experiences, with good customer service and pleasant environments.

Interestingly, the library non-users had stronger shared convictions about which services are "diluting" (NU36) the library purpose. For example, it is "not the job of the library" (NU6) to focus on promoting prosperity or supporting employment. There was also consensus that supporting public health and wellbeing is "not a core component" (NU24) of a public library service.

Comparing the Q studies

The establishment of five factors across the two Q studies demonstrated that the participants did not hold homogenous views of public libraries in England. The results from Q Study 1 show that some library users believed public libraries should focus on providing services centered around information and reading needs (Factor A), while others saw libraries as playing a role in addressing broader social issues like social isolation and employment (Factor B). This contrast in the perspectives of library users mirrors the ongoing debate found in the literature about the diversification of the service (Coates 2019; Fletcher 2019; McMenemy 2010) and "mission drift" (Goulding 2013, 482). The results from Q Study 2 reveal a wider range of perspectives among library non-users. Factor C library non-users aligned with the Factor A library users, believing libraries should focus on providing access to information and reading materials, with support from professional staff. Some (Factor D) perceived that a library service should focus on being accessible and trustworthy; whereas others (Factor E) argued they should focus on modernization to compete with commercial outlets like Amazon.

There was some consensus across the studies, summarized in Table 6.

Table 6. Similar viewpoints across all factors in both Q studies.

	Factor and item rank				
Item	**A**	**B**	**C**	**D**	**E**
employ and develop professional staff	+3	+2	+5	+3	+1
provide cultural opportunities	-2	0	-2	-1	-3
work with the community	0	-1	+1	+1	-2
provide clear guidance about the library service	+1	-1	0	0	+1
provide spaces for different needs	-1	0	0	-2	0
provide specialist services	-3	-1	-3	-2	-1
offer a range of facilities	-1	+1	0	0	-1
arrange events and activities	-1	-1	0	+1	0
operate effectively and viably	0	-2	-2	-1	+1

It is interesting to note that with the exception of employing and developing professional staff, most views common to all factors either related to actions about which the participants were ambivalent or to those with which they disagreed. The results suggest that the participants had a stronger shared sense of what public libraries should not be, rather than an agreement about what they should. For example, library user and non-user participants agreed that public libraries should not focus on providing specialist services, nor should they provide cultural opportunities. There was some agreement that "libraries keep trying to be different things" (NU2), causing them to lose sight of what is "essential" (U17).

While not universal across both studies, some dominant views were established. The belief that public libraries should primarily connect people to information is shared by Factor A (Q Study 1) and Factors C, D, and E (Q Study 2). Additionally, the same

factors shared the view that libraries are not responsible for offering services related to employment, public health and wellbeing, or economic prosperity.

What can Q contribute to public library research?

The authors argue that Q is a method that should be employed in public library research for three reasons. First, its effectiveness in encapsulating viewpoints, attitudes and experiences. Second, its possible application with small or large population groups. Third, its capacity for data reduction without loss of complexity.

As a method, Q not only reveals and compares the perceptions of different participants but also gives voice to people with differing views, values and priorities. This makes it a method well suited to public libraries because they are complex ecosystems with different stakeholder groups: the public, staff, volunteers, local authorities, third party organizations and sector bodies. (This list is not exhaustive). There are varying power dynamics between the stakeholders involved in the public library landscape: those who deliver the service, those who make decisions about the service, and those who use (or choose not to use) the service. Q is also a powerful method because it can foreground hidden or overlooked voices, by revealing "patterns within subjective perspectives that can be overlooked by even the most sensitive and discerning eye" (Brown 2008, 699). In this way, marginalized or underrepresented voices are not dominated by others. As a tool for exploring subjectivity, Q is effective with small groups and populations (Watts and Stenner 2012). This makes it a manageable method for public library research. Rather than needing to obtain a justifiable sample size to validate survey findings, especially with underrepresented groups, Q can establish which views exist about a public library and/or aspects of its service with just a few participants, but not the extent to which they are held (Brown 1980). If that is a required finding, the factor outcomes from a Q study can be used to

help create a survey to establish the prevalence of the views in a population group (Danielson 2009).

Q enables the exploration of complex issues and situations but in an accessible way, so its holistic approach is well suited to research about and by public libraries. Unlike other methods, through its Q set (the representative sample of the full concourse on a topic), Q exposes participants to the complete picture of an issue, situation or topic, whilst simultaneously gathering their opinion thereof. For instance, Q outputs can allow for greater "nuance" (Gauttier, 2017, p.4) than surveys because a survey that is designed to include everything on a topic would be unwieldy. Zabala et al. (2018, 1187) describe Q as offering "a middle ground between the structure of surveys and the depth of interviews". The structure of most survey designs relies on predetermined multiple choice or scoring systems which ultimately limit a participant's options and do not allow for flexibility.

Like Q, repertory grids are a qualiquantological method that includes the elicitation and rating of a series of constructs, which are then ranked within a stated range to indicate strength of feeling. This approach has been employed by Birdi and Ford (2018) in a public library context to investigate fiction reader characteristics. Where repertory grids explore an individual's personal constructs, Q captures and illustrates conflicting opinions as well as establishing areas of consensus across a participant group. In this way, Q acknowledges that public opinions are often contradictory and inconsistent (Zaller 1992); thus, the findings of a Q study can help public libraries to understand the diversity of public opinion about their services. Moreover, the most-to-most relative ranking of Q can help public libraries to gauge public prioritization. Where *x* is relatively ranked as higher than *y*, it does not necessarily mean *y* is not valued at all; just that *x* is valued more.

Why is Q underused in public library research?

As previously stated, this paper presents one of the only public library studies to have employed Q. Below, the authors suggest several potential reasons for the underuse of Q in public library and library-focused research.

First, there is a general lack of familiarity with Q, compounded by its limited examples in library literature. Will an editor give a Q paper a chance and will reviewers understand how to critique it? Researchers might prefer better documented methods, which are well established in the field. Due to the publish or perish culture of academia (Herndon 2016, 93), many researchers are focused on publishable outcomes, which may explain the hesitation to adopt methods like Q. This is one of the key reasons the authors decided to write this paper. Q is inherently transparent (Gauttier 2017) because all the processes from design to interpretation are documented, shared and can be replicated. Ultimately, final interpretations can be criticized or reviewed because they are linked to rigorous and documented statistical criteria.

A second possible reason for the limited use of Q in library research is a group of concerns often expressed about qualitative methods: the preference for quantitative data in industry research, particularly as public libraries and their sector bodies must continually appeal to funders (Fletcher 2019); the challenges for libraries in translating qualitative outputs into effective communications about value and impact to a wide range of stakeholders (Halpin et al. 2015); and the time, resource and labor intensity inherent in qualitative methods (Lim 2025). The authors argue that as a rigorous method that combines quantitative analysis with qualitative interpretation, Q can support public libraries with such issues. It provides a quantitative foundation for its qualitative interpretations which may appeal to industry stakeholders. Moreover, Q studies can be replicated with different groups (Rhoads and Brown 2002), or to focus on different

topics (McHugh et al. 2019), or repeated at different times. This makes comparisons possible so that public libraries can qualitatively track and report on trends and changes in public opinion. Whilst time and labor intensive, like other qualitative methods, Q's approach guides the researcher through a structured process and provides distinct outputs along the way. The concourse and Q set can be picked up and re-used, making Q a sustainable method for longitudinal research.

Finally, concerns regarding the complexity of analysis may also pose a challenge for Q's adoption. While it is true that factor analysis can be intricate, there are software tools available to support this aspect of the process. Furthermore, the interpretation of Q data is similar to that of other qualitative methods with which researchers may be familiar.

Concluding remarks: originality and contribution

The study presented here marks the first time Q has been used to explore public perceptions of public libraries and this paper has demonstrated how Q can benefit public library research.

Q studies make significant contributions in understanding and foregrounding library user and non-user views of public libraries and their services. The results have identified participant concerns about volunteers replacing professional staff, mirroring issues raised in the literature (Appleton et al. 2018; Casselden et al. 2019; Goulding 2013) about the increasing use of volunteers in public libraries. Our Q studies demonstrated that the public have reservations about public libraries being "more than" a loaning service (LGA 2017, 12), because libraries "can't be everything to everyone" (NU29). The public are clear libraries should not be made to deliver services beyond their "remit" (U8), although the results did not always present a consensus about which services are and are not "the job of a library" (NU6). This is the benefit of Q as a

methodology for exploring perceptions of library services: it not only draws together the common ground between views but also permits the complexity and diversity of opinion therein.

The authors are building on the study outcomes by undertaking additional research into effective ways that public libraries and their local authorities can engage with their local populations to ensure the services they provide meet public needs. The initial stage has begun with a scoping review that will establish the existing research into public consultation in the public library sector.

The second paper from the study is also underway, which will demonstrate how the public views captured by Q compare both to the current legislation and to the views of the government and public library sector bodies.

Acknowledgements

The authors acknowledge the support and guidance of Professor Kate Dommett who, along with Professor Briony Birdi, supervised the PhD thesis which forms the basis of this paper.

Disclosure statement

The authors report there are no competing interests to declare.

Declaration of funding

No funding was received.

References

Albright, E. A., K. Christofferson, A. McCabe, and D. Montgomery. 2019. Lessons learned: Some guidelines to factor interpretation. *Operant Subjectivity* 41 (1):134–46. doi:10.22488/okstate.20.100581.

Appleton, L., H. Hall, A. S. Duff, and R. Raeside. 2018. UK public library roles and value: A focus group analysis. *Journal of Librarianship and Information Science* 50 (3):275–83. doi:10.1177/0961000618769987.

Banasick, S. 2023. Ken-Q analysis (version 2.0.0). Accessed March 26, 2025. doi:10.5281/zenodo.8310377.

Baroness Rebuk. 2024. Public libraries volume 839: Debated on Thursday 12 September 2024. Hansard, UK Parliament. Accessed March 24, 2025. https://hansard.parliament.uk/Lords/2024-09-12/debates/46254E8F-A522-4D2D-878E-8C5CC56A1A8D/PublicLibraries.

Birdi, B., and N. Ford. 2018. Towards a new sociological model of fiction reading. *Journal of the Association for Information Science and Technology* 69 (11):1291–1303. doi:10.1002/asi.24053.

Blandford, A., D. Furniss, and S. Makri. 2016. *Qualitative HCI research: Going behind the scenes*. Williston, USA: Morgan & Claypool Publishers. Boughey, A., and M. Cooper. 2010. Public libraries: Political vision versus public demand? *Aslib Proceedings: New Information Perspectives* 60 (2):175–201. doi:10.1108/00012531011034982.

Brown, S. R. 1980. *Political subjectivity: Applications of Q methodology in political science*. New Haven, USA: Yale University Press. Brown, S. R. 2008. Q

Methodology. In The sage encyclopedia of qualitative research methods, ed. L. M. Given, 699–702. Thousand Oaks, USA: Sage. doi:10.4135/9781412963909.

Casselden, B., A. Pickard, G. Walton, and J. McLeod. 2019. Keeping the doors open in an age of austerity? Qualitative analysis of stakeholder views on volunteers in public libraries. *Journal of Librarianship and Information Science* 51 (4):869–83. doi:10.1177/0961000617743087.

Cheng, P. 2008. Perceptions of public libraries: An empirical investigation using Q methodology. PhD Diss., Kent State University.

Chowdhury, G. G., P. F. Burton, D. McMenemy, and A. Poulter. 2008. *Librarianship: An introduction*. London, UK: Facet Publishing.

CILIP (Chartered Institute of Library and Information Professionals). 2018. Public libraries: Working in partnership to meet local needs. Accessed March 25, 2025. https://www.cilip.org.uk/general/custom.asp?page=workinginpartnership.

CILIP (Chartered Institute of Library and Information Professionals). n.d. My library by right. Accessed March 24, 2025. https://www.cilip.org.uk/page/MyLibraryByRight.

Coates, T. 2019. On the closure of English public libraries. *Public Library Quarterly* 38 (1):3–18. doi:10.1080/01616846.2018.1538765.

Curt, B. 1994. *Textuality and tectonics: Troubling social and psychological science*. Buckingham, UK: Open University Press.

Danielson, S. 2009. Q method and surveys: Three ways to combine Q and R. *Field Methods* 21 (3):219–37. doi:10.1177/1525822X09332082.

DCMS. 2013. Government response to the report of the culture, media and sport select committee, third report of session 2012-13: library closures. Accessed March 24, 2025. https://www.gov.uk/government/publications/government-response-to-the-report-of-the-culture-media-and-sport-select-committee-third-report-of-session-2012-13-library-closures.

DCMS. 2016. Taking part focus on: Libraries. London, UK: DCMS. Accessed March 25, 2025. https://www.gov.uk/government/statistics/taking-part-april-2016-focus-on-reports.

DCMS. 2017. Corporate report: Strategic planning of library services: Longer-term, evidence-based sustainable planning toolkit. Accessed March 26, 2025. https://www.gov.uk/government/publications/longer-term-evidence-based-

sustainable-planning-toolkit/longer-term-evidence-based-sustainable-planning-toolkit.

DCMS. 2020. Libraries - taking part survey 2019/2020. Accessed March 26, 2025. https://www.gov.uk/government/statistics/taking-part-201920-libraries.

DCMS. 2024. Accessed March 24, 2025. https://www.gov.uk/government/publications/annual-report-to-parliament-on-public-libraries-activities-from-april-2023-to-march-2024.

DCMS. 2025. Government response to a consultation on the public lending right rate per loan for the scheme year 2023/24. Accessed March 24, 2025. https://www.gov.uk/government/consultations/consultation-on-the-proposed-rate-per-loan-for-the-2023-to-2024-public-lending-right-scheme-year/outcome/government-response-to-a-consultation-on-the-public-lending-right-rate-per-loan-for-the-scheme-year-202324.

Department for Communities and Local Government. 2011. A plain English guide to the localism act. London, UK: Department for communities and local government. Accessed March 24, 2025. https://www.gov.uk/government/publications/localism-act-2011-overview.

Fletcher, R. 2019. Public libraries, arts and cultural policy in the UK. *Library Management* 40 (8/9):570–82. doi:10.1108/LM-04-2019-0022.

Fujiwara, D., R. Lawton, and Mourato. 2015. The health and wellbeing benefits of public libraries: Full report. Manchester, UK: ACE. Accessed March 25, 2025. https://www.arts council.org.uk/health-and-wellbeing-benefits-public-libraries.

Gauttier, S. 2017. Increasing transparency in interpretive research: Q-method to objectivize the researcher's subjectivity. *AMCIS 2017 Proceedings 3*, Boston, USA. https://aisel.aisnet.org/amcis2017/Openness/Presentations/3/.

Gen, S. 2020. *Developing the Q-sample and p-set in Q-methodology: An example from policy studies. In sage research methods cases part 1*. London, UK: Sage Publications Limited. doi:10.4135/9781529716092.

Gill, P., B. Clubb, I. Glashoff, K. Hassner, N. Hayrapetian, and R. Pestell. 2001. The public library service: IFLA/UNESCO guidelines for development. Accessed March 25, 2025. https://www.ifla.org/publications/the-public-library-service-the-ifla-unesco-guidelines-for-development-2001/.

Goldman, I. 1999. Q methodology as process and context in interpretivism, communication, and psychoanalytic psychotherapy research. *The Psychological Record* 49 (4):589–604. doi:10.1007/BF03395329.

Goulding, A. 2013. The big society and English public libraries: Where are we now? *New Library World* 114 (11/12):478–93. doi:10.1108/NLW-05-2013-0047.

Halpin, E., C. Rankin, E. Chapman, and C. Walker. 2015. Measuring the value of public libraries in the digital age: What the power people need to know. *Journal of Librarianship and Information Science* 47 (1):30–42. doi:10.1177/0961000613497746.

Hariff, S., and J. Rowley. 2011. Branding of UK public libraries. *Library Management* 32 (4/ 5):346–60. doi:10.1108/01435121111132338.

Herndon, N. C. 2016. Research fraud and the publish or perish world of academia. *Journal of Marketing Channels* 23 (3):91–96. doi:10.1080/1046669X.2016.1186469.

Hoddinott, S. 2023. Local government section 114 (bankruptcy) notices. Last modified August 7, 2024. Accessed March 24, 2025. https://www.instituteforgovernment.org.uk/explainer/local-authority-section-114-notices.

IFLA (International Federation of Library Associations and Institutions). 1999. IFLA statement on libraries and intellectual freedom. Accessed March 25, 2025. https://www.ifla.org/publications/ifla-statement-on-libraries-and-intellectual-freedom.

Kelly, S. L., and B. W. Young. 2017. Examining undergraduates' library priorities through Q methodology. *Journal of Academic Librarianship* 43 (3):170–77. doi:10.1016/j.acalib.2017.04.002.

Lankes, R. D. 2016. *Expect more: Demanding better libraries for today's complex world*, 2nd ed. CreateSpace Independent Publishing Platform.

LGA (Local Government Association). 2017. *Delivering local solutions for public library services: A guide for councillors*. London, UK: Local Government Association. https://www.local.gov.uk/publications/delivering-local-solutions-public-library-services.

Libraries Connected. n.d. Universal library offers. Accessed March 24, 2025. https://www.librariesconnected.org.uk/projects/universal-library-offers.

Lim, W. M. 2025. What is qualitative research? An overview and guidelines. *Australasian Marketing Journal* 33 (2):199–229. doi:10.1177/14413582241264619.

McCahill, D., B. Birdi, and R. Jones. 2020. Investigating the public response to local government decisions to reduce or remove public library services. *Journal of Librarianship and Information Science* 52 (1):40–53. doi:10.1177/0961000618768028.

McHugh, N., R. Baker, O. Biosca, F. Ibrahim, and C. Donaldson. 2019. Who knows best? A Q methodology study to explore perspectives of professional stakeholders and community participants on health in low-income communities. *BMC Health Services Research* 19 (1):1–13. doi:10.1186/s12913-019-3884-9.

McKenna-Aspell, J. 2018. A Cinderella service in a Cinderella sector? How do current challenges in the further education sector impact library and information services in further education institutions? MA diss., University of Sheffield.

McKenna-Aspell, J. 2020. Public library services research. Accessed March 26, 2025. https://publiclibraryresearchorg.wordpress.com/.

McKenna-Aspell, J. 2023. Public libraries in England: An examination of public perceptions, post 2009. PhD thesis, University of Sheffield.

McKeown, B., and D. B. Thomas. 2013. *Q methodology*, 2nd ed. California, USA: Sage.

McMenemy, D. 2007. Ranganathan's relevance in the 21st century. *Library Review* 56 (2):97–11. doi:10.1108/00242530710730268.

McMenemy, D. 2009a. *The public library*. London, UK: Facet.

McMenemy, D. 2009b. Public library closures in England: The need to act? *Library Review* 58 (8):557–60. doi:10.1108/00242530910987046.

MLA (Museums, Libraries and Archives Council). 2010. What do the public want from libraries? User and non-user research - full research report. Accessed March 25, 2025. https://web.archive.org/web/20220304034133/https://www.artscouncil.org.uk/participating-and-attending/what-do-people-want-libraries-0.

NAO (National Audit Office). 2025. Local government financial sustainability. HC 691, ministry of housing, communities and local government. Accessed March 24, 2025. https://www.nao.org.uk/reports/local-government-financial-sustainability-2025/?nab=1.

Poole, N. 2018. Formal complaint: Decision by Northamptonshire county council in respect of statutory library service (CILIP). Accessed March 24, 2025. https://www.cilip.org.uk/page/formalcomplaint .

Pruneddu, A. 2024. Q-sort touch tool. Accessed March 26, 2025. https://qsortouch.com/new/.

Public Libraries and Museums Act. 1964. https://www.legislation.gov.uk/ukpga/1964/75/.

Rhoads, J. C., and S. R. Brown. 2002. “Sex, lies and videotape”: Attitudes towards the Clinton impeachment. *Operant Subjectivity* 25 (2):99–117. doi: 10.22488/okstate.02.100593.

R. (on the application of Draper) v Lincolnshire CC. 2014. Queen’s bench division (administrative court), case 2388. BAILII. Accessed March 24, 2025. http://www.bailii.org/ew/cases/EWHC/Admin/2014/2388.html.

Schmolck, P. 2014. The PQMethod page. Accessed March 26, 2025. http://schmolck.org/qmethod/.

Shrimplin, A. K., A. Revelle, S. Hurst, and K. Messner. 2011. Contradictions and consensus - clusters of opinions on E-books. *College & Research Libraries* 72 (2):181–90. doi:10.5860/crl-108rl.

Sieghart, W. 2014. Independent library report for England. London, UK: DCMS. Accessed March 25, 2025. https://www.gov.uk/government/publications/independent-library-report-for-england.

Stephenson, W. 1953. *The study of behaviour: Q-technique and its methodology*. Chicago, USA: University of Chicago Press.

Usherwood, B. 2007. *Equity and excellence in the public library: Why ignorance is not our heritage*. Aldershot, UK: Ashgate Publishing Limited.

VanScoy, A. 2021. Using Q methodology to understand conflicting conceptualizations of reference and information service. *Library and Information Science Research* 43 (3):101107. doi:10.1016/j.lisr.2021.101107.

Watts, S. 2009. Social constructionism redefined: Human selectionism and the objective reality of Q methodology. *Operant Subjectivity* 32 (1):29–45. doi:10.22488/okstate.09.100570.

Watts, S., and P. Stenner. 2005. Doing Q methodology: theory, method and interpretation. *Qualitative Research in Psychology* 2 (1):67–91. doi:10.1191/1478088705qp022oa.

Watts, S., and P. Stenner. 2012. *Doing Q methodological research: Theory method and interpretation*. London, UK: Sage.

Young, B. W., and S. L. Kelly. 2018. How well do we know our students? A comparison of students' priorities for services and librarians' perceptions of those priorities. *Journal of Academic Librarianship* 44 (2):173–78. doi:10.1016/j.acalib.2018.02.010.

Zabala, A., C. Sandbrook, and N. Mukherjee. 2018. When and how to use Q methodology to understand perspectives in conservation research. *Conservation Biology* 32 (5):1185–94. doi:10.1111/cobi.13123.

Zaller, J. R. 1992. *The nature and origins of mass opinion*. Cambridge, UK: Cambridge University Press.

Alt Text for Figures

Figure 1: Figure 1 is a flow chart illustrating the process of grouping 508 statements into 57 categories; providing draft titles for the categories; refining them into a Q set of 50 categories for the pilot; further refining the categories into a Q set of 45 items after the pilot.

Figure 2: Figure 2 shows the three different distribution model types for Q. The first model is platykurtic so it is quite flat. The second model is leptokurtic so it is much steeper. The third model is mesokurtic so it is a compromise between the first two.

Figure 3: Figure 3 shows the distribution model used in this study. It is mesokurtic so it is neither steep nor flat. It offers two spaces for items at the most disagree and most agree ends of the model.

Figure 4: Figure 4 shows the composite Q sort for Factor A. It visually demonstrates where each Q set item would be placed on the distribution model by participants who hold similar views to Factor A. These results are also shown in tabular format in Table 4.

Figure 5: Figure 5 presents the distinguishing items between Factor A and Factor B, summarizing the differences between the factors. For instance, Factor A feels strongest about libraries loaning physical items and connecting people to information, whereas Factor B feels strongest about an inclusive library service.

Figure 6: Figure 6 shows the Q set items which were similarly valued by Factor A and Factor B. For instance, both agree that libraries should meet children's needs and focus on reading as a core offer. Both also disagree that libraries should offer leisure-based services.

Figure 7: Figure 7 shows the Q set items which were similarly valued by Factors C, D and E. For instance, they all agree that libraries should link people to information. They

also agree that libraries should not be focusing on services that support the public with their health and well-being.