

EXPLORING VALUES AND PRIORITIES FOR
HUMAN DEVELOPMENT AT THE LOCAL LEVEL:
A NOVEL USE OF QMETHODODOLOGY TO ENHANCE DELIBERATIVE
DEMOCRACY IN A RURAL WARD IN KERALA, SOUTH INDIA

by

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Abstract

This doctoral research will argue, that despite recognition within both the analytical development and democracy literatures, individual and community values and priorities have been largely absent in widely adopted initiatives to measure human development at the local level. This, we argue, has in turn lead to an under-representation of local viewpoints in informing and driving state-led development initiatives, even when decentralised, which can result in undermining democratic legitimacy. Through examining the complimentary literature on human development and deliberative democracy we expose the lack of localised input into the measurement of desired change in formal local Human Development reports.

The rest of the thesis looks to fill this gap by explore how we may aggregate individual expressed priorities, around locally salient issues, though a novel use of QMethodology tools. We then discuss how such exercises can be informative for local public policy and public debate on values, centring the considered judgements and priorities of citizens of a local community. Through inviting all adults in ward three, Kottatara panchayat (village), in rural Wayand, north Kerala to undertake a '*deliberation within*' partial ranking exercise, using a correlation and reduction factor analysis we identify fifteen shared viewpoints. These, along with 12 unique individual viewpoints, can represent the range of viewpoints across the community, and could, we argue, inform public debate and discourse along with coalition formation and consensus building around important issues of public policy and social values.

We conclude with a discussion of the implication of the findings, the strengths and weaknesses of the novel methodology and introduce the concept of '*deliberation without*'. We consider policy implications and propose the development of an opensource smartphone app to enable community groups and local administrations to undertake swift, inclusive, and easy exercises to inform their local development trajectories.

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‘There is not a not a thought that is being thought in the West or the East that is not active in some Indian mind’ E. P. Thompson cited (Tharoor, 1997) p.9

Introduction:

The right to actively participate in the development that is happening to and around you is enshrined in UN’s 1986 Declaration on the Right to Development.¹ Article 2 of the declaration states that *‘(t)he human person is the central subject of development and the active participant and beneficiary of the right to development.’* This declaration builds on the rich political philosophy that draws from the works of Aristotle, Kant, Mills, Bentham, Rawls, Sen, Nussbaum and others who place the individual as the primary subject of a just society and democratic self-determination as the key mode to realise this.

This doctoral research will look into how, despite acknowledgement of the importance of the individual, their values and priorities drawn from their own lived realities have been under-represented in informing and driving development activities. In this thesis I argue this has contributed to the alienation of citizens from development activities and the undermining of such activities the democratic legitimacy. This study will examine the human development and capability approach literature which goes a significant way in championing the individual as the central subject of development, but all too often falls short of explicitly considering the aggregated expressed values and priorities of the individual when operationalised. To give an overview of the research field, research gap and the specifics of the case and arguments we will present the importance of local ownership of definitions and measures of development as ‘good change’.

The framework comes from Nobel economics laureate Amartya Sen who persuasively argues that, development is best achieved through considering how any initiatives or process enables:

*‘the expansion of the “capabilities” of persons to **lead the kind of lives they value** – and have reason to value’ and that ‘[t]hese capabilities can be enhanced by public policy, but also, on the other side, the direction of **public policy can be influenced by the effective use of participatory capabilities by the public.**’ (1999, p.18) [emphasis added]*

¹ Article one of the declaration reads *‘(t)he right to development is an alienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realised’*

After reviewing the development and philosophical literature that builds the argument for the centrality of the individual and their priorities to achieving development objectives, we undertake a case study to explore how different analysis of aggregated expressed priorities of individual adults within a community could help us understand how different priority ranking across a community can be used to inform public discourse and public policy.

A theory of Justice

20th century political philosophy has argued that just and equitable development and public policy must have an underlying theory of justice. In both the works of John Rawls (1977) and Amartya Sen (2008, 2009) they show a particular explicit concern in for those worst off in society and the moral imperative this gives for inclusive and responsive public policy beyond simple majoritarianism to enable a just society.

Measuring change

How we choose to measure change is important as it encapsulates our normative views on progress and that have been used over the years, emphasising how measure of GDP per capita were always considered as instrumental for people lives (Lewis 1966, Sen 1989) and not ends in their own rights. In 1968, just month before his assassination, US senator and presidential candidate Robert F (Bobby) Kennedy delivered this famous takedown of the value of economic growth as measured by GDP to the lives of Americans:

“Our Gross National Product, now, is over \$800 billion dollars a year, but that Gross National Product - if we judge the United States of America by that - counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl. It counts napalm and counts nuclear warheads and armored (sic) cars for the police to fight the riots in our cities. It counts [mass murderers] Whitman's rifle and Speck's knife, and the television programs which glorify violence in order to sell toys to our children. Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play.

It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile.

And it can tell us everything about America except why we are proud that we are Americans.”

University of Kansas speech, March 18, 1968

In 2009, France’s President Sarkozy launched a ‘Commission on the Measurement of Economic Performance and Social Progress’ bringing three of the world’s most eminent welfare economists together, Amartya Sen, his fellow Nobel economics laureate Joseph Stiglitz, and celebrated french economist Jean-Paul Fitoussi. One of the main recommendations of the final Report was to “*shift emphasis from measuring economic production to measuring people’s well-being.*” (2009, p12). Especially insightful, was a comment by Stiglitz at the 2009 launch of the report, which succinctly highlighted a key issue for this thesis:

“What we measure affects what we do.

If we have the wrong measures, we will strive for the wrong things.”

The Human development and the Capabilities Approach

The capabilities approach as developed by Amartya Sen and Martha Nussbaum is interest in human flourishing. They argue that good development should be assessed in the way it expands the capabilities of people to achieve their goals. This approach has been patricianly influential UN agencies, the UNDP in particular and informed the formation of the Millenium Development Goals and their successors the Sustainable Development Goals (Robeyns 2005) Mahbub ul Haq – the founder of the human development report – and creator of the Human Development Index, argues that what empowerment ‘ought’ to mean includes ‘*a political democracy in which people can influence decisions about their lives ... so that real governance is brought to the doorstep of every person. It means that all members of civil society, particularly non-governmental organizations, participate fully in making and implementing decisions*’ (ul Haq1995 p. 20)

Chapter one: Literature review

In this literature review, we explore three main areas: the capabilities approach, QMethodology and deliberative democracy. We first explore the literature on human development briefing introducing recent work on wellbeing and happiness before moving to a more detailed exposition of the capabilities approach associated with Amartya Sen, Martha Nussbaun which informs the human development framework through the UN's Human Development Reports. The second main literature we draw on is QMethodology, '*qualiquantological*' research method which combines qualitative data with quantitative analysis to understand shared subjective points of view. And finally, we draw on the deliberative democracy literature which developed by John Drysek and colleagues. The main purpose of this chapter is to provide the conceptual underpinning of our discussion of local priorities that follows.

The birth of the development sector

The modern 'development sector' is often seen as a post-second World War project of the last 75 years, building on the successes of US-funded Marshal Plan to rebuild a war-ravaged Europe, and from US president' Harry Truman's 1949 inaugural speech advocating for development assistance from the industrialised more developed north to the less developed global south countries (McVety 2012). In Truman's vision, development was seen as a predominantly technology-led linear economic modernisation process. However, in the same year, this approach was challenged in separate papers by economists Hans Singer and Raúl Prebisch whose analysis underpinning what became known as the dependency theory, showed that the terms of trade for underdeveloped countries relative to the developed countries had deteriorated over time (Pieterse 1998), and largely ignored the colonial and slavery history of Europe and North America (Rodney 1972). The geo-politics of the cold war over the following decades, where western support for the deposition and assassination of democratically elected leaders such as Patrice Lumumba and support for despots such his successor Mobutu Sese Seko, further challenged the position that foreign 'assistance' provided any developmental benefit to the ordinary citizens of the global south (Mvogo 2022). With the advent of what became 'development studies' in the 1960, primarily in new global north universities with programmes run by former colonial administrators aimed at training a fresh cadre of civil servants from the global south, a more normative approach to development was required (Kothari 2005), and a more nuanced understanding of the political economy of development was required (Hudson and Leftwich 2014).

Human development – happiness and wellbeing

Happiness has long been seen as a desirable goal of a good life. In his *Nicomachean Ethics*, Aristotle, whilst agreeing that happiness is generally agreed to be a kind of living that is active, inclusive of all that has intrinsic value, and complete, lacking nothing that would make it richer or better, he argues that a more specific understanding aligned with valuable activities such as ethical, intellectual and political excellences is preferable. (Nussbaum 2004). This tradition continues through the western philosophy of Kant through to the father of utilitarianism, Jeremy Bentham, though to Sen and Nussbaum's capabilities approach. Physical and mental (as well as for some spiritual) wellbeing has also been seen as a desirable objective of development, moving beyond aggregate happiness to contentment, and beyond the physicality of material needs to psychological wellness (Gough and McGregor 2007).

Gross National Happiness

In 1971, three years after the Bobby Kennedy speech at the University of Texas, the 16-year-old Crown Prince Jigme Singye Wangchuck of Bhutan was appointed by his father to as Chairman of National Planning Commission, to lead on the development of the country's third five-year plan. It is reported that when he succeeded his father as Druk Gyalpo (Dragon King) the following year, Wangchuck pronounced that Gross National Happiness (GNH) was more important than Gross National Product (GNP), and that this would be the guiding principle of his reign (Thinley 2007, OPHI n.d.). The coining of the term Gross National Happiness, (Bonheur National Brut) has been attributed to the Dutch joint-first Nobel economics laureate Jan Tinbergen a year or so earlier.² The idea of centring happiness in public life builds on a long tradition in Bhutanese political philosophy. In 1675, a Buddhist 'Social Contract' was declared Bhutan which stated that the happiness of sentient beings and teachings of the Buddha were mutually dependent. Then in 1729, a legal code adopted in Bhutan stressed that laws should promote happiness (Thinley 2007). Therefore, emanating in part from the prevailing Bhutanese Mahayana Buddhist philosophy, GNH places cultural and environmental preservation as important to the Bhutanese people as standards of living and mental wellbeing (Givel 2015).

² Some happiness studies scholars such as Med Jones (n.d.) have challenged the idea propagated by Bhutanese authorities and academics through the UN that the term 'gross national happiness' was first used by Druk Gyalpo Jigme Singye Wangchuck soon after his ascension to the Bhutanese throne in 1972. Whilst Jones (n.d.) incorrectly attributes it to European Commissioner Sicco Mansholt in a letter to the EC president Franco Maria Malfatti, in that letter Mansholt (1972) attributes the term to Dutch economist Jan Tinbergen (Pinna 1979)

Wellbeing in developing countries.

The challenges of defining and measuring wellbeing in developing countries has been explored by a multidisciplinary set of scholars based out of the University of Bath³ and with contribution from psychologists, anthropologists, political scientists, sociologists and economists, including from human development and capability scholars Sabina Alkire and Des Gasper. The research programme sought to develop a more holistic vision of wellbeing to inform our understanding of social change and international development (Gough and McGregor 2007). The programme drew insights from in depth qualitative fieldwork in twenty-six communities across four countries in the global south: Bangladesh, Ethiopia, Peru and Thailand. The key conceptual contribution from a focus on wellbeing in international development is that it acknowledges the fully rounded humanity of poor people's in the global south; recognising that the poor are not defined solely by their poverty, and that they can not be fully understood in its terms alone (Gough, McGregor, & Camfield 2007), and how wellbeing in and of itself is what can make the lives of the poorest bearable.

The capability approach – Sen and Nussbaum's differing approaches

In his influential book 'Development as Freedom', Nobel Economics laureate Amartya Sen (1999) famously argues that '*the success of a society*' should be judged '*primarily by the substantive freedoms that members of the society enjoy*' (p.19). He conceptualises this by arguing that development is best achieved through focusing on how processes or interventions enable '*the expansion of the "capabilities" of persons to lead the kind of lives they value – and have reason to value*' (p.18). In this, Sen draws an explicit distinction between the potential 'capability' an individual has to achieve a particular thing, from whether they choose to realise this potential. This realised potential he calls 'functionings'.

³ Led by Allister McGregor and Ian Gough, the ESRC research group on wellbeing in developing countries programme ran out of the Uni of Bath 2002 to 2007, and focused on exploring concepts and measurements of wellbeing in four countries: Bangladesh, Ethiopia, Thailand, and Peru, with a subsequent programme focusing in Zambia and India led by Sarah White.

Sen exemplifies this important distinction between potential ‘capability’ and realised ‘functioning’ through considering how we view differently a rich man choosing to fast and a poor man going without food because he does not have the means to buy it. Whilst the lack of nutritional intake (or function) is the same, Sen argues that it is important to distinguish between the two, and that whilst the former makes a choice not to eat, he has the means and access to, whilst the latter makes no such choice and does not have the same means and access. This distinction between potential ‘capabilities’ and realised ‘functionings’ is at the heart of much of the discussion around the challenges of measuring development through the capabilities approach (Anand 2011, Alkire 2008, 2010, Coast 2019, Oh and Hudson 2024).

Amartya Sen on agency and capabilities

The capability approach sees ‘good development’ as that which centres people’s ability to influence the political, social and material world around them. For Sen therefore, a key component of the capability approach is that of individual agency. He argues that *‘The ends and means of development call for placing the perspective of freedom at the center of the stage. The people have to be seen, in this perspective, as being actively involved – given the opportunity – in shaping their own destiny, and not just as passive recipients of the fruits of cunning development programs’* 1999 p 53. This places the onus on state actors, especially at the local level, as well civil society and development actors, to enable not just robust and meaningful participation in development activities, but more fundamentally to ensure a democratic co-ownership of development processes by those citizens and all those impacted.

Since the selection of which capabilities should be the focus of any particular development initiatives is not fixed and is dependent on the changing values of a population, there is no complete set of capabilities that necessarily aligns to all populations at all times. The exercise of populations selecting capabilities face two particular challenges, these of omission – where important capabilities are left out, and power, where an elite choose capabilities that advantage their views at the expense of others. (Alkire and Deneulin 2009). Sen calls this *‘the fundamental and pragmatic reasons’* for incompleteness (1992, p49)

Martha Nussbaum's central human functional capabilities.

Sen's erstwhile collaborator in developing the capability approach, Chicago constitutional law philosopher Martha Nussbaum has a somewhat different approach. Nussbaum argues that whilst a list of core capabilities should never be set in stone, political philosophers and ethnicities from Aristotle onwards have long discussed what constitutes 'a good life', and that this is essential to address the issues of omissions and power. Nussbaum argues that *'just as people can be taught not to want or miss the things their culture has taught them they should not or could not have, so too can (they) be taught not to value certain functionings as constituents of their good living'* (1988 p175)

To this end, in her seminal 2000 book 'Women and Human Development: The Capabilities Approach', Nussbaum proposes a list of ten core capabilities which she believes can be used as a foundation for such discussions. This list is based on her understanding where she believes the discussions of political philosophy and ethics has currently settled, which have informed the kinds of constitutional protections that a liberal democracy should have in place, and the substance of UN's Universal Declaration of Human Rights which followed the atrocities of the Second World War.

Alkire (2007) summarises the debate between the two founders of the approach on this issue as follows: *'Whilst Nussbaum argues that there should be a 'list' of core capabilities; Sen argues that the capabilities should be selected in light of the purpose of the study and the values of the referent populations, and that their selection should be explicit and open to public debate and scrutiny.'* p.1

Nussbaum's core capabilities list provided below, and we will have an opportunity in our method section to show how this list could be used at a local level.

*'1. **Life.** Being able to live to the end of a human life of normal length; not dying prematurely, or before one's life is so reduced as to be not worth living.*

*2. **Bodily Health.** Being able to have good health, including reproductive health; to be adequately nourished; to have adequate shelter.*

*3. **Bodily Integrity.** Being able to move freely from place to place; to be secure against violent assault, including sexual assault and domestic violence; having opportunities for sexual satisfaction and for choice in matters of reproduction.*

*4. **Senses, Imagination, and Thought.** Being able to use the senses, to imagine, think, and reason—and to do these things in a "truly human" way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing and producing works and events of one's own choice, religious, literary, musical, and so forth. Being able to use one's mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech, and freedom of religious exercise. Being able to have pleasurable experiences and to avoid non-beneficial pain.*

*5. **Emotions.** Being able to have attachments to things and people outside ourselves; to love those who love and care for us, to grieve at their absence; in general, to love, to grieve, to experience longing, gratitude, and justified anger. Not having one's emotional development blighted by fear and anxiety. (Supporting this capability means supporting forms of human association that can be shown to be crucial in their development.)*

*6. **Practical Reason.** Being able to form a conception of the good & to engage in critical reflection about the planning of one's life. (This entails protection for the liberty of conscience & religious observance.)*

*7. **Affiliation.***

a. Being able to live with and toward others, to recognize and show concern for other humans, to engage in various forms of social interaction; to be able to imagine the situation of another. (Protecting this capability means protecting institutions that constitute and nourish such forms of affiliation, and also protecting the freedom of assembly and political speech.)

b. Having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of non-discrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, national origin and species.

8. **Other Species.** *Being able to live with concern for& in relation to animals, plants, & the world of nature.*

9. **Play.** *Being able to laugh, to play, to enjoy recreational activities.*

10. **Control over one's Environment.**

a. Political. Being able to participate effectively in political choices that govern one's life; having the right of political participation, protections of free speech and association.

b. Material. Being able to hold property (both land and movable goods), and having property rights on an equal basis with others; having the right to seek employment on an equal basis with others; having the freedom from unwarranted search and seizure. In work, being able to work as a human, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers.'

Values and the capability approach

In this section, we consider human values, what can be considered values and how have social scientists looks at such. We consider the discussion as to whether values are universal or individual and draw particularly on the discussion between Sen and Nussbaum on the extent to which core value can and should be identified. This will lead to some discussion of human rights and the capability approach.

Sen reminds us that values aren't static and argues that the only way for any value-based assessment to have legitimacy for members of a community is via democratic engagement, including through open and free media, elections and inclusive opportunities to engage with public discourse.

'one of the strongest arguments in favor [sic] of political freedom lies precisely in the opportunity it gives citizens to discuss and debate - and to participate in the selection of - values in the choice of priorities' (Sen 1999 p. 30)

This deliberate centring of values by Sen ensures that what is to be assessed as ‘good development’ is therefore contingent on the non-static values within a society and of the individuals whose capabilities are being expanded, which vary over time and space (Abramson & Inglehart, 1995). There is some convergence between Sen writing on development as freedom and Inglehart’s writing in the 1970s (1971), (1977) where he proposed a theory of value change which, through greater democratisation, see values move away from predominantly ‘materialist’ concerns around physical and economic security toward what he identifies as ‘post-materialist’ concerns around freedom, self-expression and quality of life.⁴

This thesis builds on this centring of values via an exploration of individual subjective values and priorities at one particular time and space, and their aggregation within one specific public policy case study context. To explore this, we will ask residents of one community what is important to them. To do this we turn to Q methodology: the ‘*scientific study of subjectivity*’.

Individual revealed and expressed preference

Here we discuss the possibility of knowing what an individual values and how can we know an individual’s preferences? Does it matter if these are expressed or revealed preferences and what if they contradict each other? I think I’ll have to cover some of the economics literature on revealed preference (Samuelson 1938) as well as some of the democracy literature and the value of expression.

⁴ These theories were further explored via the Eurobarometer and then the World Value Survey, founded by Inglehart in 1981.

Sen 1999 argues that ‘Since our freedoms are diverse, there is room for explicit valuation in determining the relative weights of different types of freedoms in assessing individual advantage and social progress.’ ... ‘But explicitness, we shall argue, is an important asset for a valuations exercise, especially for it to be open to public scrutiny and criticism. Indeed, one of the strongest arguments in favour of political freedom lies precisely in the opportunity it gives citizens to discuss and debate – and to participate in the selection of- the values in the choice of priorities.’ p. 30 and that ‘[f]or a particular person, who is making his or her own judgements, the selection of weights will require reflection, rather than any interpersonal agreement (or consensus).’ p78 Elsewhere, Sen warns us against relying solely on self-reported states. In his editorial for the British Medical Journal, Perception versus observation, (2002a) he shows that individual assessment of health may not be in line with the appraisal of medical experts. Here he shows that Kerala has the highest self-reported morbidity in India, in contrast to Bihar with one of the lowest self-reported morbidities.

Operationalising the capabilities approach & measuring of human development

There have been a number of theoretically informed, policy influential attempts to operationalize the capabilities approach. By far the most well know is the Human Development Index of the UNDP, an attempt to widen policy focus on crude economic measures such as GDP per capita, and whilst includes an income measure as a third of the index, it also provides a focus on education and health, both of which both intrinsically valued by people in their own right, but arguably more importantly, are instrumentally valuable in a minimum level being required if the individual is to achieve other capabilities that are maybe harder to measure and politically more contentious freedoms. These may include for example political freedoms such as democratic participation and women’s empowerment (Stewart et al 2018).

The Alkire - Foster method and the multidimensional poverty index

Another particularly influential operationalisation of the capabilities approach is the Alkire – Foster method (Alkire 2008, 2010). This method is primarily used to create the Multidimensional Poverty Index (MPI) produced for the UNDP by the Oxford Poverty and Human Development Initiative (OPHI). In this method, indicators across various domains can be aggregated to provide a robust poverty measurement. For the global MPI, mirroring the human development index, rather than an income indicator, the domains of health and education represented by indicators of nutrition and child mortality, and years of schooling and school attendance are complemented by a series of six quality of household infrastructure indicators on: cooking fuel, sanitation, drinking water, electricity, housing and assets.

As the MPI is a deprivation measure, for each of these ten indicators a deprivation level is defined as follows: (UNDP/OPHI 2022)

Health

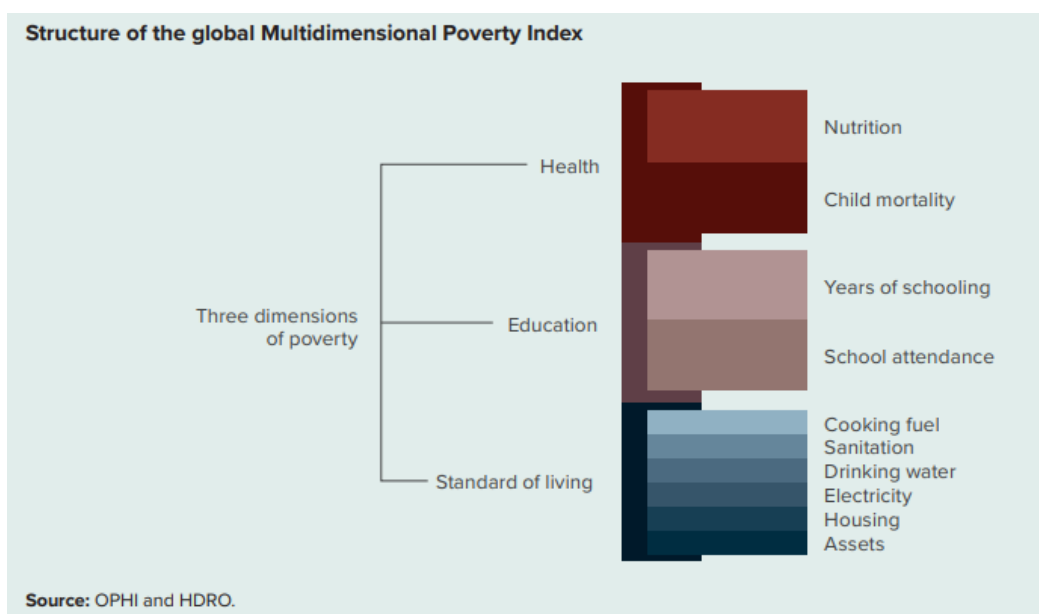
- a household and all people living in it are deprived if any child is stunted or any child or adult for whom data are available is underweight;

Education

- if at least one child died in the past five years; if any school-aged child is not attending school up to the age at which he or she would complete class 8 or no household member has completed six years of schooling;

Standard of living

- the household lacks access to electricity,
- an improved source of drinking water within a 30 minute walk round trip,
- an improved sanitation facility that is not shared,
- 2 nonsolid cooking fuel,
- durable housing materials, and
- basic assets such as a radio, animal cart, phone, television or bicycle.



Each of these indicators is equally weighted within each domain, so that health, education and standard of living contribute a third each to the overall MPI measurement. The Alkire – Foster method can provide a useful technique for aggregating capabilities through known domains and indicators. For example, the technique has been adopted beyond poverty methods, through development of a novel Bhutan ‘Gross National Happiness’ Index (Alkire 2008, Alkire et al 2012, Alkire and Zangmo 2023, see also the section introducing GNH above on page five). This index works in a similar way to the MPI through the identification of nine domains, each with between two and four indicators, totalling 33 – and each indicator having a minimum cut off beyond which an individual is considered deprived.

These domains are:

psychological wellbeing	time use	good governance
health	cultural diversity & resilience	community vitality
education	ecological diversity & resilience	living standards

However, the Alkire - Foster method can only be used when two conditions are available: first that the domains relating to capability areas are already known, and second that these are reliable data sources for sensible indicators relating to each domain.

Examples of operationalising the capability approach in health economics

There have been other influential examples of operationalising the capabilities approach, especially within health economics in the UK. This includes Paul Anand and colleagues at the open university (Anand et al 2004, Anand and Van Hees 2006) who have developed a robust survey tool which, through a number of papers, they explore the co-variables of experienced utility with relations to life-satisfaction and happiness. They later refined this questionnaire by mapping 18 specific capability items against Nussbaum's list of 10 core capabilities (OCAP-18) and correlating the 198 survey responses with measures of health (EQ-5D) and wellbeing (global QoL) and found that the survey instrument was sensitive to sex, age, income, and deprivation decile (Anand et al 2009), and could be used to measure the effectiveness and cost effectiveness of public health interventions.

Another important health economics example of operationalising of the capabilities approach is that of Joanne Coast and team at the Universities of Bristol and Birmingham who developed a suite of tools known as the ICECAP capability measures (Coast et al 2008, University of Bristol n.d). Much like with Paul Anand's work, these tools are effectively a series of questionnaires developed specifically to capture an individual's capabilities, and which can be used in the economic evaluation of health and social care interventions. The particular novelty these instrument draws from the capabilities approach is that rather than focusing on indicators of health or other influences on quality of life. For example, the adult measure focuses on five conceptual attributes of quality of life: attachment, security, role, enjoyment and control, and has been used with different groups - including adults with depression (Mitchell et al 2017). Alongside adults, these tools have been adaptation for use with children and young people, older people, for use in end-of-life care and for us with those close to patients at the end of life (Myring et al 2022), and have been further adapted for use in China (Xiong et al 2021). A particularly important contribution from this team for this thesis, is where they use deliberative valuation to elicit relative weights for a set of capabilities (Kinghorn et al 2021).⁵ This 2021 study is of particular interest to this current study, as it attempts to engage directly with the study participants to gauge their relative priorities across the capabilities, in this case participants were randomly invited from the general population.

⁵ It's amazing that I only come across this work just before submitting!

Participation and human development

In the 1993 global Human Development Report, Mahub ul Haq includes the following confirmation of how central participation is to human development

‘Participation, from a human development perspective, is both a means and an end. Human development stresses the need to invest in human capabilities and then ensure that those capabilities are used for the benefit of all. Greater participation has an important part to play here: it maximises the use of human capabilities and is thus a means of increasing levels of social and economic development. But human development is also concerned with personal fulfilment. So, active participation, which allows people to realise their full potential and make their best contribution to society, is also an end in itself.’ (UNDP 1993 p21 cited in Cornwall and Scones 2011)

The role of democracy in forming collective values

Discursive democracy can be seen as how individuals negotiate to form consensus and mitigate conflict through deliberative processes. Drydyk (2003, 2005) and Crocker (2007). Bianci (2008) explains that (t)he two main sources of deliberative democracy are the liberal tradition (e.g. J. S. Mill) and a critical theory oriented towards the progressive emancipation of individuals and community from oppressive forces that are, according to Dryzek (2002), ideological activities rather than structural necessities; becoming aware of these forces may lead to emancipation from their influence.’ Goodin’s notion of deliberation within is especially useful for us: *‘Deliberation also has a familiar “internal-reflexive” aspect. Deliberation consists in the weighing of reasons for and against a course of action. In that sense, it can and ultimately must take place within the head of an individual’* 2000 p81 Sen distinguishes between individual choices and public choices. for which he advocates public debate and discussion (and consensus?) *‘public policy assessment that is done in terms of variables closer to the decisional concerns of individuals may be able to use personal decision as selection devices’* Sen 1999 p. 133

Role of public discussion and media in political agenda setting

This final section looks at how public and social institutions effect political agenda setting. This looks at the role of civil society and other institutions, of issues of marginalisation and inclusion and of participation. *‘A variety of social institutions – related to the operation of markets, administrations, legislatures, political parties, NGOs, the judiciary, the media and the community in general – contribute to the process of development precisely through their effects on enhancing and sustaining individual freedoms.’* Sen 1999 p.297. On the instrumental and constructive importance of political freedom: *‘informed and unregimented formation of our values requires openness of communication and arguments, and political freedoms and civil rights can be central for this process. Furthermore, to express publicly what we value and to demand that attention be paid to it, we need free speech and democratic choice.’* Sen 1999 p.152 *‘we cannot, in general, take preferences as given independently of public discussion, that is, irrespective of whether open debates and interchanges are permitted or not.’*p153

An example Sen reflects on is the comparable reproduction rate (the number of children per adult female) between Kerala, with its high rates of literacy, health care and public deliberation, with those in China, brought about through decades of the authoritarian one-child policy. Sen argues that whilst the significantly reduced reproduction rate, and the accompanying reduction in poverty, malnutrition rates and increase in education that follows are comparable, we’d still want to argue that as Kerala’s rate came down through democratic discussion through a free media and universal literacy campaign, coupled with a move toward universal health care, this path would be something citizens would value, over the authoritarian route of China.

Background to QMethodology – the scientific study of subjectivity

This section provides an introduction to the tools of QMethodology which will be used in our analysis. It gives a conceptual background to the method including concourse theory, and using a simplified hypothetical example of colour preference among child, we provide an overview over the key QMethod tools which we will use in the fieldwork and analysis including QSampling, QSorts and factor analysis. Through the use of an innovative to QMethod analysis, through using a census approach rather than a population sample, we are enable to aggregate individual expressed preferences into shared positions across a local community. This allows us to understand local preferences in development. We feel this is an important methodological contribution, and provides an alternative approach to a localised human development report.

QMethodology is a set of statistical techniques which enable the identification of shared positions derived from a factor analysis of a group of individuals' subjective views on a particular topic. It enables a researcher interested in the subjective views of their research participants to quantify and group these into share viewpoints. Using a number of QTechniques that we will explore below, the QMethodologist facilitates individuals⁶ to express their subjective views around an issue through a '*self-reference*' partial ranking of a collection of wide ranging and representative statements or other stimuli (such as images). Simply put, QMethod enables research on subjective positions and the identification and exploration of shared viewpoints that exist on any particular subject across a population. QMethodology, which is most associated with psychology, has been characterised as a '*qualiquantological*' research method combining qualitative data with quantitative analysis and interpretation (Stenner & Stainton Rogers, 2004).

⁶ Whilst invariably QMethod studies are based on individual subjective views, via the analysis of individual QSorts, Celia Kitzinger (in Wilkinson (ed) 1986) proposes the idea of collective QSort construction from a group. So far, from extensive engagement with the main QMethod academic community: the International Society for the Scientific Study of Subjectivity (ISSSS) there have been no published attempts to date to operationalise this proposal.

The following succinct summary by McKeown & Thomas (2013) provides a useful definition:

QMethodology is '*the distinctive set of psychometric and operational principles which, when combined with specialized statistical applications of correlational and factor-analysis techniques, provide researchers with a systematic and rigorously quantitative means for examining human subjectivity*' p ix

QMethodology was conceived and developed by British physicist and psychologist William Stephenson, who published the founding ideas in a letter to Nature in the mid-1930s entitled *Technique of Factor Analysis* (Stephenson, 1935). In this seminal letter, Stephenson, who was a graduate assistant of noted psychologist and factor analysis pioneer Charles Spearman, argues that Spearman's well-developed 'R' factor analysis, which is concerned with analysing characteristics of a population through correlation tests and factor extraction, can in effect be 'inverted' to analyse the properties of a 'population' of statements or viewpoints.

After the Second World War, Stephenson expanded this thesis in his book *The Study of Behavior:[sic] Q-Technique and Its Methodology* (1953) which outlines in detail statistical techniques⁷ for obtaining partial ranking (or ratings) which he names QSorts, and explores a variation of correlation and factor analysis which he names QTechniques.⁸ In the following sections we first introduce the founding ideas around correlation analysis and factor extraction before moving to a practical overview of the concepts and techniques used in QMethodology using an example of a simplified study of colour preference among three children.

⁷ see Brown 1980 for a full detailed mathematical exposition, and Watt and Stenner 2012 for a more accessible overview.

⁸ Brown later writes that Stephenson took two key ideas from Freud: and that the pleasure-pain principle and the reality principle were '*core of everything that Q-methodology stands for*' (1980 p2)

Correlation analysis and factor extraction – an introduction

Correlation analysis is used by statisticians to show the extent of agreement or variability between two sets of variables, ordinarily comparing two measurements from the same individual to test the association or covariance between them across a population (n). This correlation can be either positive or negative, or that there is no correlation (Watts and Stenner, 2012). Where there is a positive correlation between two variables, as the magnitude of one variable increases, the magnitude of the other tends to also increase. So, to consider a common example, comparing people's height to their weight across a population (say a class of students), we would expect to see that the two variables of height and weight would be positively correlated: ie the taller someone is, the heavier they tend to be, and vice versa.

Conversely, if two variables are negatively correlated, then whilst the magnitude of one variable increases, the magnitude of the other variable tends to decrease. An example would be if we compare the number of days absence from a particular school class with final exam score for that subject, we might expect to see that the more days absence a pupil has, the lower their final exam score is, and vice versa. Standard correlation statistics invariably use a range from +1 to show fully positive correlation to -1 to show fully negative correlation. If, whilst comparing an association or covariance between two variables, as one variable increases or decreases there is no observable tendency for the other variable to increase or decrease, it can be said there is no correlation between them. In correlation statistics, this would give a score of 0. An example where we would not expect correlation might be between students' height and exam score.⁹

⁹ With a small caveat that as children's height is strongly positively correlated with age, and older children in a school year tend to perform better than summer born children, you may expect to see a small positive correlation between height and test score (Case and Paxson, 2008).

The standard across-disciplinary correlation analysis techniques were developed in the late 19th century with their most (in)famous proponent being English biostatistician Karl Pearson, building on previous work developed by his mentor, fellow eugenist and social Darwinist (and Charles Darwin's cousin) Francis Galton at UCL, using a mathematical formula first published by French physicist Auguste Bravais in the 1840s (Stigler, 1989).¹⁰ The key mathematical challenge that the Pearson Correlation Coefficient was able to address was how to standardise between variables that use different measurements.

Taking the first example above, it is not possible to compare height in meters and centimetres with weight in grams and kilograms directly. It does not make sense to say 'I am heavier than I am tall'. However, the correlation coefficient calculations standardise the measurement to a relative range from the highest to the lowest within a population. This is known as the Z score.¹¹ It is then possible to compare the Z scores of two variables that use different measurements by looking at where an individual's score lies within the ranges of both measurements, and where it lies compared to the mean. This solves the issue of the mathematical comparison of two variables that use different measurements. These measurements are now a relative measure, and it means it is possible for example, to say that whilst someone is below average height, they are above average weight. This way, it now makes sense to consider an individual's relative position of their height and weight as compared to the wider population (Watts and Stenner, 2012).

¹⁰ A useful reminder for the dictum '*correlation does not imply causation*'. In his influential book '*The Grammar of Science*' Pearson himself wrote '*All causation as we have defined it is correlation, but the converse is not necessarily true, i.e. where we find correlation we cannot always predict causation.*' (Pearson, 1900 p.407)

¹¹ '*The z-score is a weighted average of the values that the Q-sorts most closely related to the factor give to a statement, and it is continuous. Factor scores are integer values based on z-scores and they are used to reconstruct the Q-sort of a factor, which is then interpreted.*' (Zabala and Pascual, 2016)

The Pearson Correlation Coefficient¹² (r)¹³ can be used to show the degree of covariance between two variables with a linear relationship, such as the positively and negatively correlated examples of the school children's height compared to weight and days of absence compared to exam score respectively, mentioned above. Expanding on this, William Stephenson's doctoral supervisor Charles Spearman, also at UCL at the same time as Pearson,¹⁴ expanded the Pearson techniques to develop Spearman's Rank Correlation Coefficient (ρ) enabled such a correlation coefficient to be calculated between the rank values of two variables, even if the relationship is non-linear. Spearman also pioneered the techniques of factor analysis, which Stephenson would build on for the development of QTechniques (Brown, 1993).

Spearman's development of factor extraction is effectively a mathematical reduction technique which enables the measured covariance across a number of variables for a given population to be explained by a reduced number of unobserved variables, known as factors. In his paper '*General intelligence objectively determined and measured*' (1904), Spearman introduced the idea of factor analysis through theorising that the high correlation between numerous test scores for school children's attainment in unrelated subjects could be explained by an unobserved and unmeasured factor of general intelligence (g). In developing these factor analysis equations,¹⁵ Spearman was able to identify a single factor which could explain the high correlation across the tests and eliminate the irrelevant factors. This means that when multiple indicators covary - factor analysis can provide an '*alternative manifestations of a single or latent factor*' (Watts & Stenner, 2012 p 10).

¹² As this isn't an economics PhD, I'll not go into details on the two correlation coefficient equations, but useful to note them as they are built into the stata programme which is used for the analysis. Pearson correlation coefficient $r = \frac{\sum(x_i - \bar{x}_i)(y_i - \bar{y}_i)}{\sqrt{\sum(x_i - \bar{x}_i)^2 + \sum(y_i - \bar{y}_i)^2}}$

where x_i and y_i are the two variables and \bar{x}_i and \bar{y}_i and the mean of the variables. Spearman's rank correlation coefficient

$\rho = \frac{6 \sum d_i^2}{n(n^2 - 1)}$ where d_i is the difference between the two ranks of each observation and n the number of observations.

¹³ 'r' was first used by Galton in his 1877 lecture '*Typical Laws of Heredity in Man*' and initially termed 'reversion' which he later termed 'regression' (Pearson, 1920)

¹⁴ Though Pearson did not appreciate Spearman's work and there was a long-lasting feud between them (Lovie & Lovie, 1993)

¹⁵ Spearman (1904), developed two factor equations the first for when the irrelevant factor is connected with only one of the two compared series, and the second for when it is connected to both the: $r_{pq} = \frac{r_{1pq}}{\sqrt{1 - r_{2pq}^2}}$ and $r_{pq} = \frac{r_{1pq} - r_{pq} \cdot r_{pq}}{\sqrt{(1 - r_{2pq}^2)(1 - r_{2pq}^2)}}$,

Around the time that Stephenson was completing his second PhD, in psychology at UCL¹⁶, and joined as a graduate assistant at the turn of the 1930s, Spearman's foundational work on factor analysis had been expanded on by American psychologist Louis Thurstone whose paper '*Multiple factor analysis*' (1931) which first introduced key concepts of communality, uniqueness, and rotation, which enabled Stephenson to develop his ideas for QMethod. For his 1935 letter and subsequent writings, Stephenson realised that this type of intra-person analysis – known as 'r' which compares the variables (columns) across a population (row), - could be 'inverted' to compare people (rows) against their subjective thoughts on a topic, resulting in the birth of QMethodology.

How Q factor analysis differs R factor analysis

It is worth reflecting at this early stage on the relationship between 'R' factor analysis developed by Spearman, and Stephenson's 'Q' factor analysis, since many readers – especially statisticians and economists, will be more familiar with the former. Whilst 'R' examines correlations across objective measurable variables of a population of people, 'Q' analyses examines correlations between the subjective views of people (Danielson, 2009).

Stephenson summarises this relationship in the following:

'Factor analysis ... is concerned with a selected population of n individuals each of whom has been measured in m tests. The $(m)(m-1)/2$ intercorrelations for these m variables are subjected to ... factor analysis. The technique, however, can also be inverted. We begin with a population of n different tests (or essays, pictures, traits or other measurable material), each of which is... scaled by m individuals. The $(m)(m-1)/2$ intercorrelations are then factorised in the usual way' (Stephenson, 1936b: 344/45, cited Watt & Stenner 2005 p71)

¹⁶ After his first PhD in physics at Durham. There is a link between exploration of quantum physics& QMethodology which is explored by QMethodologists such as Ramlo (2022a, 2022b, see also Stephenson 1982a 1982b) which we do not go into here

So, whilst the ‘population’ of an R study, is people, the ‘population’ of a QStudy is a collection of statements (or other stimuli¹⁷). So as the mathematical factor analysis technique of QMethod can be seen as an inverted factor table from R factor analysis – the columns in the factor matrix table ‘rotating’ from objective measurable traits of individual people to individual’s subjective viewpoints via their ranking of statements. This approach can be called ‘by-person factor analysis, since the variable represents one participant’s point of view. A key difference is that in Q the sampled statements interact with each other and are self-referencing, which is not the case for variables in R method. For example, a person’s height is objectively measured and doesn’t require reference to another measurable trait – say weight – for it to have meaning, however how an individual views a particular statement in Q analysis can only be understood in relation to its position or ranking against the other statements. Whilst R research deals with objective verifiable statements of fact, Q research deals with subjective statements of opinion. The same dataset cannot therefore be used for both types of studies.¹⁸

Steven Brown, one of QMethodology’s foremost authorities (Rhoads et al, 2022), explains this key difference between an ‘R’ and a ‘Q’ study as follows:

‘the sample in an R study is composed of persons drawn randomly: respondents in a survey rarely know one another; hence the elements of the sample do not interact. In QStudies, on the other hand, the sample elements are statements which do interact i.e., the subject, while performing a QSort, constantly makes comparisons between statements’ (1980 p. 51).

For a R study survey, whilst it is important that the sample of people drawn from the population is representative, say via randomisation and/or stratified selection, for Q, it is important that the sample of statements are representative of all the existing views on the topic.¹⁹ For those new to QMethodology, the following sections will use a simple example of colour preference, which we will use to introduce the different concepts, tools and techniques used.

¹⁷ Whilst different stimuli can be subjectively ranked, such as sound, tastes and in our example below colour, since the vast majority of QStudies explore the operant subjectivity of the discourse or a particular topic, we’ll just ‘statements as a short-hand

¹⁸ *‘If value preferences are at issue, the most sensible and straightforward strategy is to ask a person to provide a synthetic picture of what his value preferences are, and one crude way of doing this is to instruct him to model his preferences in a QSort’* (Brown 1980p53)

¹⁹ *‘Q avoids the “numbers games” in a certain sense because it studies qualitative differences, on which quantity has no effect. If you wish to examine the differences in color between a tub full of green and a tub full of red paint, for instance, a thimble of each will do and buckets full from the same tubs will only provide redundant information. Similarly, in Q: If you are interested in examining the differences between the thinking of factor A vs. factor B, three or four of each will do and buckets full will not advance understanding markedly.’* (Brown 1996, p. 563)

Q Methodology: an exposition using a simple colour preference example

Imagine as researchers we were interested to find out more about people's colour preferences.

Colour preference is an individual subjective judgement, and there is no 'right' or 'wrong' answer. So, whilst an objective statement such as 'that door is red' is a factual statement, which can be verified to be true or false, a researcher interested in colour preference is not simply looking to verify objective truths but to examine what subjective preferences exist within a population, and whether there are common views, opinions or rationalisations for such colour preferences among individuals with similar views or tastes.

- as a psychologist we may hypothesise that individuals who prefer bright colours may feel more positive when observing brighter colours compared to darker ones, or that those who preferred darker, earthy colours feel closer to nature and feel more peaceful when observing them.
- or as a feminist sociologist we want to explore the persistence of gendered pink and blue preference among gender studies graduates and non-graduates.
- or as a political scientist, we hypothesise that there is greater alignment of the colours of a nation's flag with a sense of national identity among those on the political right than those on the political left.
- or as a corporate researcher for an interior design company or paint maker we want to know more about colour preference of our customer base for market research purposes to inform our designers.

These individuals we engage with may come either from a population defined as 'all persons' as may be the case for the psychologist²⁰, or a particular education cohort such as may be the case for the feminist sociologist looking at gendered colour preference among university and non-university students, or party member or 'the party faithful' for the political scientist, or for the interior design company's customer base (actual or potential) for the corporate researcher.

²⁰ though likely spatially and temporally defined with age or say cognitive ability exclusion criteria

Whatever the disciplinary background, research motivation and question, as a researcher interested in people's colour preferences, we could simply ask individuals to choose their one favourite colour, or both their favourite and least favourite colour, however this would only give us very limited information and would likely result in individuals being grouped still having wildly differing colour preferences beyond a single favourite or least favourite colour. Whilst this would enable us to bunch all those who responded saying, for example, that purple was their favourite colour, this provides very limited information about their preferences across the range of the colours which as a researcher we may find would provide additional useful insights for our research. QMethodology however, enables us a researchers could ask the research participants to partially rank²¹ the colours from most favourite to least favourite, providing a much more detailed snapshot of their subjective preferences for colour. Whatever our study's research interest, we can imagine devising a piece of research to ask participants their expressed preferences across a selection of colours. We could ask them to undertake a full or partial ranking from their most favourite to least favourite colour. As colour is a spectrum, this could be from an almost infinite range of colours by shade - as long as the human eye could distinguish, or to simplify this could draw from a more finite range of colours.

To help introduce the methodological and analytical tools of QMethod, we will use a simplified example: to ask research participants their subjective preference between the seven colours identified in Newton's colour wheel²² referenced in the mnemonic 'Richard Of **Y**ork **G**ave **B**attle In **V**ain': **R**ed **O**range **Y**ellow **G**reen **B**lue **I**ndigo **V**iolet.²³

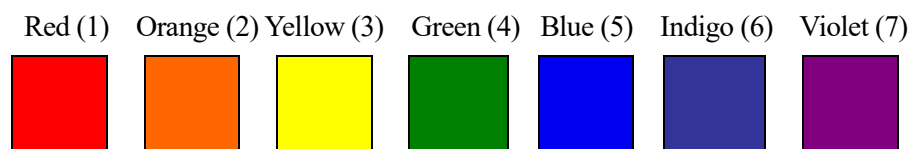
²¹ This partial ranking is based on a model Stephenson proposes as being closer to how people think about preferences rather than a full ranking. More on this below.

²² In his 1704 book, *Opticks: A Treatise of the Reflexions, Refractions, Inflexions and Colours of Light*, Isaac Newton divided his colour circle into seven to help explain colour mixing and to match the seven tones in an octave. P. Rowlands, *Newton and Modern Physics* (World Scientific, London, 2017).

²³ Coding for MS word colours <https://docs.microsoft.com/en-us/office/vba/api/word.wdcolor>

A simplified research scenario could therefore be the parents of three children wish to repaint their playroom. They've asked us as QMethod researchers to understand more of the children's colour preferences. Through this simplified example, we will see how a QMethodologist would approach such a research study, select their range stimuli²⁴ (in this case colours, but for the majority of QStudies, these will be statements) that they want participants to express their views on, and provide an overview of the analysis that can then be undertaken. As each participant's choices are subjective, it is important in QMethodology to ask them each about their decision making: what was going through their mind when they were making their choices.

We will see how a QMethodologist compares a research participants preference ranking with others to see if they are part of shared preferences with other research participants. The stimuli (QSample) for our simple colour preference example would therefore be:



I will now introduce the tools to be able to undertake the different stages of QMethodology research of subjectivity and refer back to this example throughout.

²⁴ 'By the same token, concourses are not restricted to words, but might include collections of paintings, pieces of art, photographs, and even musical selections' Brown 1980 p 95

Introduction to QMethodology tools

Under simple instruction from the researcher, the tools of QMethodology allow research participants to express their subjective views about a topic. An individual participant's subjective view can then be compared to other participants' subjective position via a correlation analysis, to see how similar or divergent the viewpoints are against each other. In this section, I will introduce some of the key concepts and terminology used in QMethodology as well as the tools used by QMethodologists to undertake a QStudy. We will use our colour preference example outlined above will provide a simple example of each. We will first look at concourse theory, which provides a conceptual framework for how QMethodologists understand how people subjectively converse and think about topics. Then we introduce the QSample which is drawn from the concourse, an overview of what a P- set, the participant selection, is, what conditions of instruction are, and finally the QSort, the main tool QMethodologists use to enable individuals to express their views on a topic.

Concourse Theory of Communication

A key foundational concept developed by Stephenson throughout his extensive writings on Q is what he called the 'concourse' (cf Stephenson 1953, 1978, 1986, Brown 1980, and Stenner & Watt 2012). We can imagine a concourse as a set of all existing *views on* and/or *statements about* a particular topic. These can either be positive, negative or neutral statements and can be spoken or written, or indeed simply thought and never spoken aloud. Stephenson felt statements that make up a concourse should however be easily talked about between people, which he called '*common communicability*'. Stephenson describes a concourse as: '*[a] universe of "statements" [...] for any situation or context [...], to remind us that the concern is with conversational possibilities, not merely informational. There is a concourse for every concept, every declared statement, every wish, every object in nature when viewed subjectively*' (1986, p. 44).

Put more accessibly, QMethodology stalwart Steven Brown (1980) explains that we can see Stephenson's idea of concurrence as

'the very stuff of life, from the playful banter of lovers or chums to the heady discussions of philosophers and scientists to the private thoughts found in dreams and diaries. From concurrence, new meanings arise, bright ideas are hatched, & discoveries are made: it is the wellspring of creativity and identity formation in individuals, groups, organizations, and nations, and it is QMethodology's task to reveal the inherent structure of a concurrence -- the vectors of thought that sustain it and which, in turn, are sustained by it.'" p95.

A concurrence therefore is everything that is actually being said, written and/or thought about a particular issue at a particular time. For those who know statistics, concurrence in Q can be seen as equivalent to the total population in R analysis – where the population is everyone who could be sampled for the study (Watts and Stenner, 2012).

The level of sophistication of a concurrence, will depend on the level of specialism among the interlocutors, for example lawyers, academics, activists, engineers or other professionals – which we may call an epistemic community, often have highly specialist language, developed and often complex concepts and shared understanding and history that may not be easily understood by the non-specialist such as a member of the public, at least without some introduction and training. This is however fluid and is dependant to some extent on the prevailing level of information, interest and discourse in the public domain. For example, following the outbreak of the coronavirus pandemic at the end of 2019, the level of knowledge known to scientists about the virus throughout the following year, 2020, and then subsequently communicated via extensive public health campaigns to the general public grew significantly over the year, to an extent that many informed non-specialist ordinary members of the public or professionals working in the public and private sectors had a much better grasp of basic epidemiological concepts such as 'r' reproduction rate, viral spread, and how vaccinations work, - which also including misunderstandings and fake news (Geldsetzer, 2020).

For most QStudies the concourse will be confined to a range of commonplace expressions, the kind found in newspapers, discussed at water coolers or down the pub, that might come up in conversations around a topic. When we think of any topic where there are a clear range of views – say for example climate change or Brexit, it can be easy to think of the more extreme views, from climate change denial to imminent extinction, or that the UK leaving the EU will solve all challenges faced by the UK population, or that it is a political and/or personal disaster. These more extreme positions are important parameters in the concourse.

However, depending on the topic - beyond specialist commentators, politicians, activists, or academics, other people may not hold especially strong views on a particular topic, and their subjective views may be more subtle, nuanced, contradictory and possibly informed (or misinformed) or focused on a specific aspect or possible personal impact, real or imagined. Since concourse theory is based around language and the ideas that words and sentences impart, a topic's potential concourse infinitely stretches in different directions, including in every context, language, cosmology, place and time on which conversations could be had and differing viewpoints could be held.²⁵ However, the prevailing concourse is the *actual* existing subjective views, statements and thoughts among a specific group of people, or polity, and not those that are merely potential.

²⁵ As social scientists, we can see how bringing a new critical perspective to a topic of discussion extends a topic's potential concourse in particular directions. For example, through the introduction of radical critical political science discourses such as postmodernism, feminism, Marxism, postcolonialism, or simply by extending the reach of those discussing a topic through the translation of a book into a new language, a non-specialist newspaper running a story, or the expansion of gender-equitable or class-diverse education. The position that any individual holds within a topic's concourse depends therefore not just on their beliefs and expertise but also on the prevailing context and their past experience (Stephenson, 1986), (Maier, 2021).

It is through an analysis of subjective assessment of statements extracted from the concourse that QMethodologists aim to find understanding and meaning in subjective positions. In the following quote, Joanne Coast (2017) explains how central the idea of the concourse is to QMethodology:

‘the purpose of every QStudy is to locate access points and find means to ‘hear’ the flow of communication that is the concourse. We can find entry points to existing conversations or generate new discussion around any topic of concern, from simple subjects, as in Stephenson’s example [...] ‘it is raining’, to commonly discussed moral or political issues such as assisted dying or the referendum for Scottish independence’ p167.

Using our colour preference example outlined about, the concourse for such a piece of research would therefore be the actual considered colour preferences of people within a defined population, either express through conversational statement and expressed choice or that form part of individuals internal thoughts. For some these colour preferences will be more static than for others. Some individuals will have strong and long held preferences on colour whilst for others, their colour preferences may change more frequently depending on season, mood, fashion time, place or other factors.

Whether static or changeable, for each individual these preferences may or may not align with prevailing fashions, social/ national or gender norms which the researcher may seek to explore. Concourse theory therefore provides the conceptual foundation on which QMethodologists build their exploration of subjectivity.²⁶ This exploration is undertaken through the use of QTechniques and QMethodology tools we will now introduce.

²⁶ ‘The thrust of QMethodology is therefore not one of predicting what a person will say, but in getting him to say it in the first place (i.e., by representing it as a QSort) in the hopes that we may be able to discover something about what he means when he says what he does. This immediately brings us back to the principles of contextuality & dynamics.’ Brown 1980 p 46

QSample

The QSample is the subset of statements (or other stimuli) drawn from the concourse which the study participants will consider against each other. Whilst the parameters of the concourse are usually not fully known, in the same way that the exact population in an R study (such as a country or community) is not exactly known, the QSample is finite and defined. Therefore, the key objective for the researcher for the selection of the QSample is to draw out the widest and most representative possible set of views on or statements about a topic. Just as in an R study you want your participant sample to be representative of the population via techniques such as randomised / stratification selection, in QMethod you want your QSample to be representative of the concourse it is drawn from. It is this relationship between the QSample and the concourse which enables the interpretation from the resulting factors.

Drawing on our colour preference example, the QSample for such a study would therefore be a range of colours which people can express preference over. As mentioned above in the colour preference example overview, whilst there is almost infinite range of possible colour variations, to enable a simple and manageable example, we use the seven colours mentioned in the mnemonic. The simplified QSample would therefore be: Red Orange Yellow Green Blue Indigo Violet, which provides a range of colours from the ‘concourse’ which is made up of colours.²⁷ For the purpose of this example, whilst we can imagine how a study into colour preference would likely select a much large range of colours for participants to engage with, for this simplified example, we’ll consider a hypothetical scenario where the parents of three young siblings have cheap access to these seven colours and wish to get a better understanding of the preferences between these colours to use them to paint the playroom.

²⁷ For this example we are keeping the QSample small for simplicity, at just seven colours. As visible light is a spectrum and the human eye can distinguish millions of variations of colour, most of which are not named (Gibson & Conway, 2017)

The QSample selection therefore is usually theoretically informed, with the researcher gathering and selecting statements (or other stimuli, such as colours) based on prior understanding of the topic. This is the equivalent of how a population sample in an R study might be theoretically informed and demographically stratified to ensure there is adequate representation from specific groups, for example age, class, race, disability status, gender and/or education level as required for the study. For a representative QSample, the QMethodologist must ensure that an adequately wide range of possible views on the topic are drawn from its concourse. The researcher will aim to draw from different ideological discourses on the topic, such as those found within publications aimed at the political left or right, or from opposing sides of a political debate.

However, it is only through the subsequent factor analysis that the extent to which these preconceived categories actually exist and inform individuals viewpoints, and it is the resulting factors that represent actual shared viewpoints within the concourse and may not align with the theoretically informed potential viewpoints. As Steven Brown puts it, '*there is never a guarantee, that splashdown will occur in the same area as the point of departure*' (1980 p 39) The resulting factors that are the key analytical categories are therefore produced *a posteriori* from the analysis, rather than *a priori* categories such as in a R study identified by the researcher prior to any analysis (such as age or gender etc), and this is one of the key differences between Q and R studies, and viewed by QMethodologists as a particular strength of the method.

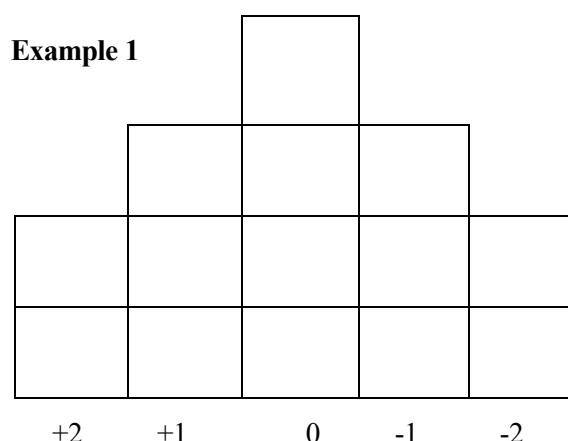
P- set

Following the QSample, is the P-set: the selection of participants for the study. Whilst ensuring the representativeness of the QSample statements from the concourse ensures that research participants are not constrained from being able to provide their subjective views, it is also important that the research participants themselves are selected in a way to ensure they represent a wide range of views on the topic. Building on Brunswich's (1947) theory of representativeness, Stephenson saw that for the results of a QStudy to reflect the differing views held on a topic within a society, alongside a representative QSample selection, it was necessary that the research participants represented as wide as possible the range of differing views and positions held and existing in the concourse.

Whilst considerations of the inclusion of participants from across broad demographic categories such as age, gender, race, disability status, education level, may help inform P-set selection if these were felt to potentially influence a person's subjective views on a topic, representation from across a spectrum of ideological position is generally more important, such as political party affiliation, or party voted for at the last election, whether religious or not, or role in an organisation or sector – activist, government official, officer/ manager, service user/ affected member of the public.

QSort and operancy (functionalism)

The most recognisable of the QMethod tools is the QSort, which is usually displayed as either a matrix pyramid (example 1), or inverted pyramid (example 2), and assists the research participant in ranking the QSample statements (or stimuli²⁸) according to the participants subjective judgement, comparing each statement against the others. The QSort matrix forces a research participant to partially rank the QSample statements along a normally distributed subjective continuum such as ‘*most like their point of view, to least like their point of view*’, ‘*favourite to least favourite*’, ‘*most characteristic to most uncharacteristic*’ or ‘*most agree to most disagree*’ (Watt & Stenner 2005 p77, Stainton Rogers 1995 p180)



Example 1 above would enable a research participant to rank 14 different statements from left to right – most to least. It is only a partial ranking as the participant is asked to select two statements to place in the +2 column, and not to rank between them. Then three statements in the + 1 column, 4 in the 0 column, three in the -1 and finally two in the -2 column. We will show an even more simplified version of this using our seven colours of the rainbow example.

²⁸Whilst other stimuli other than statements such as colour (as with our colour preference example), music, taste etc can be used in Q research, the vast majority of QStudies exploring ‘common communicability’ (Stephenson 1986) are statements and so where I refer to QSample ‘statements’, this should be taken as short-hand for ‘statements or other stimuli’

Example 2

-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6
(2)												(2)
	(3)										(3)	
		(4)									(4)	
			(5)								(5)	
				(6)							(6)	
					(6)						(6)	
						(8)						
-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6
← Most Disagree						Most Agree →						

Example 2 above is reproduced from Watt and Stenner (2005 p77) shows an QSort matrix ranging from -6 on the left to +6 on the right and can incorporate 60 QSample statements. A QSort matrix of this size is not uncommon with QStudies typically ranging from between 24 and 72 QSample statements for research participants to rank. In the same way as in example 1 above, the research participant here is asked to select the two statements they most disagree with and place these in the far left (-6) column, as is not required to rank between these two statements. Then to work their way down the matrix, with the next three statements they most disagree with in column -5 and so on, until the two statements they most agree with are placed in column +6 on the far right.

Both example 1 and 2 each show a typical QSort matrix, and it makes no difference to the operation or analysis as to whether the matrix is a pyramid or inverted pyramid, or whether they run from positive to negative 1 or vice versa. These quasi-normal matrices force a research participant to undergo a partial ranking activity of the QSample statements. Stephenson believed this quasi-normal distribution was useful for modelling how human subjectivity works, with fewer more strongly positive or negative held views on a topic — represented at either end of the matrix in these examples two statements, and greater numbers of less strongly held views clustered in the middle (Brown 1980).

Condition of instruction

Before a participant is able to arrange the QSample statements in a QSort, the researcher must direct the research participant on what they must consider, this is known as the condition of instruction (Brown, 1980). The vast majority of QStudies, including this one, ask participants to place the statements in an order that places those statements closest to their own view at one end of the QSort matrix, and those statements furthest from their own view at the other end. However, how a researcher directs the participant to undertake the ranking process, will depend on the circumstances of the study (Coast, 2017).²⁹

Whilst by far the most common condition of instruction is to ask research participants to place the statements in order ranging from those closest to their current own view to those further from their own view, other instructions could be given such as, *‘please place them in the order you believe such-and-such-a-person* (say with a particular political party affiliation), *would order them’* or *‘how you believe you would have ordered them when you were a teenager’*, or if circumstances were different, say if you had won the lottery/ or been elected to political office. These alternative conditions of instruction can give an insight into the understanding a person has of alternative point of rather than a simple reflection of their own views in their current circumstances.

²⁹ whilst direct participant – researcher interaction is usually preferable, there are a growing number of QStudies taking place online (Coast, 2017), especially in the most recent couple of years over the covid19 pandemic.

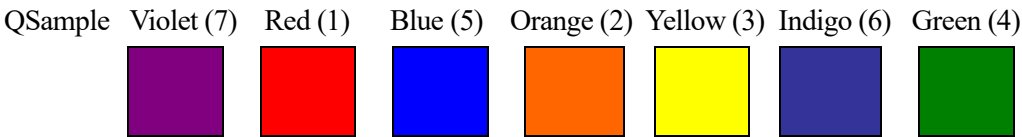
Undertaking a QSort – deliberation within

Whether - via the direction of instruction - the researcher requests the participant to express their own current subjective view or an alternative view point, it will invariably involve an initial introduction to the scope of the topic and to the full set of QSample statements so the participant can start to gauge the parameters within which they will rank them. The three children, who we'll identify as siblings 1, 2 and 3 will then be asked to place statements within the matrix, as per the condition of instruction. This will involve a considerable amount of internal reflection and adjustment as they work through the statements. In example 1 above, this simple QSort matrix has a distribution ranging from +2 to -2, and space for fourteen QSample statements to be partially ranked. For example, 1 matrix above, the researcher would ask the participant to identify two of the fourteen QSample items as being closest to the judgement, depending on the conditions of instruction.

Robert Goodin (2000) has called this process 'deliberation within', arguing that much of the discursive arguments put forward within deliberative democratic debate (cf Dryzek, 1990) also goes on within the head of each individual. This idea of deliberation within is a useful conceptualisation for the process a research participant undergoing whilst completing a QSort, and a helpful conceptual link between the two key literatures of QMethodology and deliberative democracy. Whilst research participants views are of course informed by wider discussions, debates, news, circumstances and other information they access, the process of considering the ranking for a QSort is not done in conversation with anyone else, and the researcher must only provide direction via the condition of instruction and on how to place their ranking in the QSort matrix, and not any commentary on the rankings themselves, which must purely individually subjective.³⁰

³⁰ As Brown (1980) explains '[a] QSort, in essence, reflects the impact of a mind in operation, of a person thinking, evaluating, and interpreting in relation to the array of stimuli brought to his focus of attention in the form of a QSample.' p 44

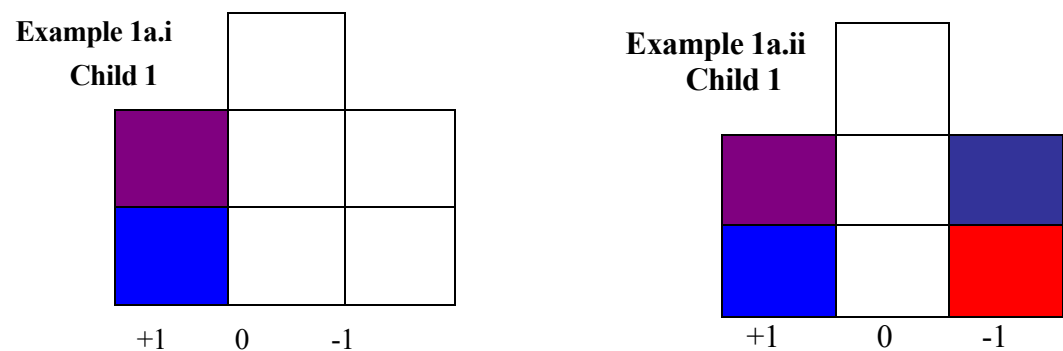
Taking our simplified colour preference example above where parents are considering three siblings' colour preferences from a pallet of seven colours, the researcher would produce the QSample of the seven coloured squares below, randomly ordered, for each of the three siblings to order by preference. For this example, I used a random number generator,³¹ which after duplicates generated 7 1 5 2 3 6 4 as a sequence. However, when the QSort is being undertaking physically, a good shuffling like with a deck of cards would suffice. The research participant would first be asked to look at all the QSample cards one by one, in the case of statements, to read them each through one at a time, and any need for clarity of the content of the QSample can be made.



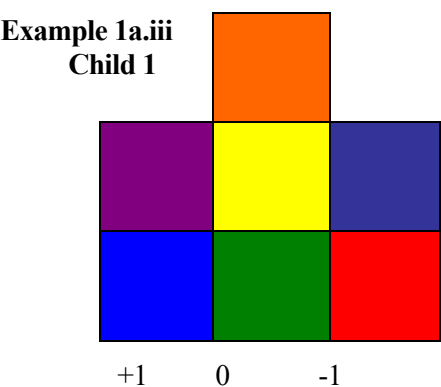
The research participant would then be asked to identify their two most preferred colours. In example 1a.i, the research participant has chosen violet and blue as their two most preferred. Note that they are not asked to choose between the two for their one most favourite, and that the two most preferred colours in our model 2 -3 -2 matrix are considered equal, and so it doesn't matter which order they go: blue above violet, or violet above blue, as in 1a.i below. It must however be two colours that are chosen. If they have three equally preferred, the model forces them to relegate one leave just the two most preferred. We see here the first operency, or 'deliberation within' at work.

³¹ There a numerous online random number generators – for this I used www.random.org For a QSample of seven there are 5,040 possible arrangements of the seven cards (7!), though within the above three column matrix 2 3 2 there are 420.

Next, from the remaining five colour cards, the research participant is asked to identify their two least preferred colours. Note that as the QSort process progresses, it starts to get a progressively easier, with – for this example, the first decision was to choose two out of seven options as the participants most preferred colours, and this second decision process is to choose two out of the remaining five. Our research participant in example 1.1ii has chosen red and indigo. Again, it doesn't matter what the order of the two least preferred colours are, indigo above red, or red above indigo, they are both treated the same in the analysis.





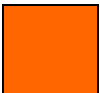




Once both the two most preferred colours – here violet and blue, and the two least preferred colours: here indigo and red, have been place in the matrix (1a.ii) this leaves three colours: orange, yellow and green which will populate the middle column of the matrix: as shown in 1.1iii below. Again, the order of these three in the column does makes no difference to the analysis.



It is important to note that the statements' positioning on the matrix are only relative to one another, and does not indicate some sort of absolute. So for participant 1, it is not that they have no view on orange, yellow and green, nor that they necessarily dislike indigo and red, it is just that they prefer those to the left of the matrix compared do for those to the right.³²

It is also important to note that it is not necessary for a person's view to be fully coherent and free from contradiction, as people views on any topic are always partially formed. However, the process of undertaking a QSort helps each participant confront potential inherent tensions in their thinking. This is why QMethodologists refer to this as operancy/ functionalism as their resulting QSort of the function of their prevailing views on the topic.³³ The final important step for a social science researcher, is then to have a conversation with the research participant and record their thinking on why they chose their most and least preferred colours, which can then assist with explaining the research outcomes.

To help show how QMethod analysis works, can move then to a second research participant, who once again, would be presented by a randomly³⁴ ordered deck of QSort cards to the research participant along with the condition of instruction to order using the seven-cell matrix from the two most preferred colours to the left and the two least preferred colour to the right.

QSample	Green (4)	Yellow (3)	Orange (2)	Blue (5)	Red (1)	Indigo (6)	Violet (7)
randomly ordered							

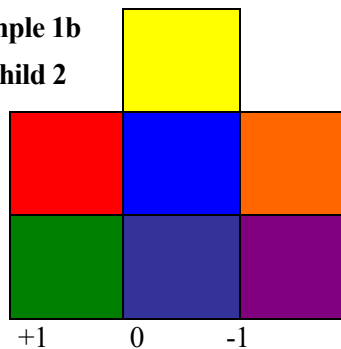
³² 'The Q-sort continuum does not have the same conceptual property of a thermometer: Disagreement (- 5) is not simply a lesser degree of agreement (+5) in the same way that cold is a lesser degree of warmth; they are opposites, each evoking relatively equal amounts of emotional intensity. Subjects doing a QSort are always more emotive about statements scored - 5 than those scored 0, i.e., the expression of intensity is not least at - 5, but at 0; - 5 statements have roughly the same intensity as +5 statements, but the affect is negative. Brown 1980 p 22 n6

³³ '[n]ormally, persons giving a Q-sort representation (realization) of their viewpoints (thing-in-itself) do so fairly accurately (rigid transformation). That they may be lying or self-deceived (projective) is always a possibility that may enter into the explanation of a single QSort or of an entire factor matrix.' Brown 1980 p44

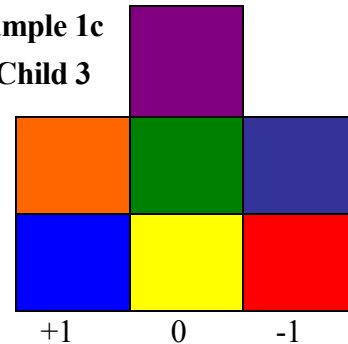
³⁴ We again use the random number generator to 'shuffle' the colour cards and get the sequence 4 3 2 5 1 6 7 after duplication

Using the same steps as above: after viewing all seven colour cards, sibling 2 is requested to select their two most preferred colours and selects red and green and places them in the two + 1 cells furthest to the left. Of the remaining five colour cards, they are then requested to select their two least preferred colours, selecting orange and violet, and placing these in the two -1 cells further to the right. This leaves yellow, blue and indigo to populate the three middle '0' cells. Note again that the order for each column does not matter. Their final sort is show in 1b. The researcher would then have a conversation with participant two about their rationale as to why they think they choose those that were their preferred colour and host that were their least preferred. For our example, we have repeated the process again for a third participant (example 1c), who chose orange and yellow as their two most preferred colours, and indigo and red as their two least favourite colour.

Example 1b
Child 2



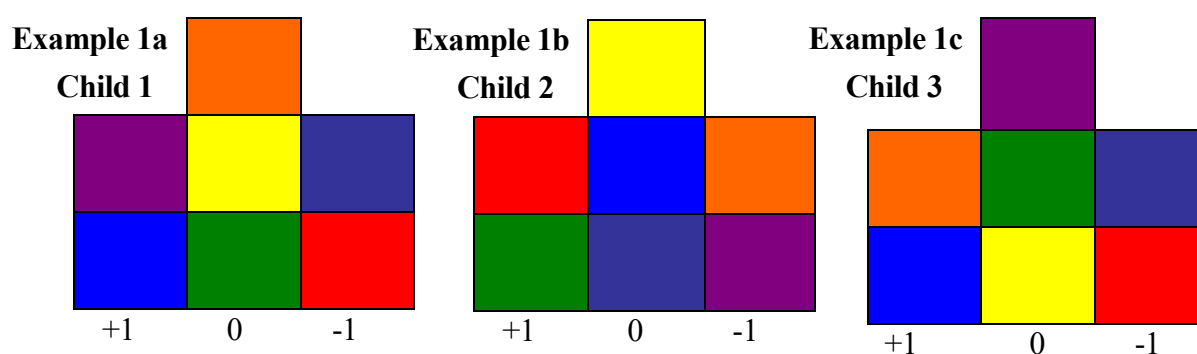
Example 1c
Child 3



A QStudy would then repeat this with usually between 25 to 60 participants. For this introductory example, we will show some initial insights from a basic analysis of just these three QSorts. The expected outcome is to see if there are clusters of people with similar views. This would then be able to help inform the research objective, in this case, to produce colourful public art that appealed to these different clusters of people as identified via the QMethod analysis. With this simple example of three siblings, we can show below how the QSorts are analysed.

Q analysis and QSort correlation

Below we will briefly show how the correlation analysis is undertaken and the kind of insights a QStudy is able to provide. If we were to continue the study for a large set of participants, since colour preference is not a polarised topic, we would expect to see a wide range of very different QSorts, with pretty much every colour being selected as one of the two most preferred, or one of the two least preferred. For this simplified example, as there are only three research participants (the three siblings), we can initially take a look at the three QSorts next to each other, and get a sense of some of the insights we could gauge if as researchers we were only interested in the three children's views.



We can summarise these initial insights in the following table and showing the position chosen for each colour by the three children, as well as the average position and the range.

On the following page will we summarise the insights.

Table showing the selected position of each colour by the three participants

A	B	C	D	E	F	G
Colour	Child 1	Child 2	Child 3	highest	lowest	mean
RED	-1	1	-1	1	-1	-.33
ORANGE	0	-1	1	1	-1	.00
YELLOW	0	0	0	0	0	.00
GREEN	0	1	0	1	0	.33
BLUE	1	0	1	1	0	.66
INDIGO	-1	0	-1	0	-1	-.66
VIOLET	1	-1	0	1	-1	.00

If we scan down the penultimate two columns of the table above, we can see:

- every colour with the exception of indigo and yellow has been selected as one of their two favourite colours by at least one child (column E)
- three colours: yellow, green and blue, were not placed in any of the three siblings least favourite two colours (column F)

Looking at the specific placements of the colour for the three children:

- yellow is the only colour where all three siblings have agreed. This is known as a consensus view. We can see this from the row headed 'yellow' just has 0s across it all.
- we have two colours: orange and violet, where there is no agreement between any of the three children, and the siblings have each selected one of all three possible positions, being one of children's two most favourite (+1), another of the children's two least favourite (-1) and neither one of their two most or least favourite for the third child (0).
- there is agreement between children 1 and 3 on the placement of five of the colours
 - both children placed Blue as one of their two most favourite colours (+1)
 - both children have placed both Red and Indigo as their two least favourite colours (-1),
 - both children have placed Green: in their middle column, indicating neither that is one of either children's two most or two least preferred colours (0)

We can start to get the idea from the high number of matching placements the colours in both child 1 and child 3's QSorts, that there is relatively high level of agreement in their overall preferences, and that these two QSorts would be higher correlated than if comparing the QSorts of child 1 with that of child 2 or of child 2 with that of child 3. We'll look at the formal correlation statistics in a moment.

Remembering our simple research scenario outlined above in the 'QSample' section, the simple QStudy with the three children has some insight back to the parents:

- that if they chose to paint the playroom blue, it would be two of the children's two favourite colours and none of the children's least preferred colour
- if they chose to paint the playroom green, it would be one of the children's two favourite colours and none of the children's least preferred colour.
- If they chose yellow, it would be both none of the children's favourite colour, nor least favourite colour.

These insights gauged from the simple QStudy can help the parents consider what values of preference and equity they might want to use to make a judgement on which colour to paint the playroom. If they want to emphasis equity, with no greater preference among the three children, then they must choose yellow – which was placed in the same position for all three children. However, for the most preferred colour, then they should choose blue, which was in two of the children’s two favourite colours, and not one of the third child two least preferred colours.

Exploring the level of correlation between the QSorts

In considering the colour preference among the three siblings from these seven colours, the above exercise is sufficient to draw some useful insights to help the parents decide which colour would work best for all the children. However, we will use these three QSorts to explore at the idea of pairwise correlation. Before we get to the more formal correlation calculations using Pearson’s or Spearman’s formulas, we’ll first look at how we might simply compare our three QSorts pairwise with a basic correlation exercise.

In this exercise, for each of the three set of pairing we identify where there is one-to-one agreement on the placement of a particular colour: indicated by +1, or the opposite positioning indicated by -1, or no agreement, indicated by 0. As there are seven colours to compare, with only three possible positions (one of two most favourite at +1, one of two least favourite at -1, or one of three at 0) this means, given the structure of this particular QSort matrix, an exact match of two QSorts would be given a total score +7 and a fully negatively correlating QSort, would be given a total score of -4. The total negatively correlated score of -4 is because the maximum places where there can be opposite placement between two of the children, are in the two most preferred position and two least preferred position, and all four would need to be oppositely placed to score the maximum negative correlation of -4.³⁵

³⁵ If we did wish to use the crude correlation measure in a similar way to the Pearson or Spearman formulas, then we could divide the number of positive matches by the maximum, 7 and the negative opposites by 4. This would give a slightly negative crude correlation score of -0.25 between both Child 1 and 2 and between Child 2 and 3, and strongly positive crude correlation score +0.71 between Child 1 and 3.

Data matrixes for pairing comparison of colour position

Comparing the QSorts of Child 1 and Child 2

Colour	RED	ORANGE	YELLOW	GREEN	BLUE	INDIGO	VIOLET	Total
Child 1	-1	0	0	0	1	-1	1	-
Child 2	1	-1	0	1	0	0	-1	-
Crude correlation	-1	0	+1	0	0	0	-1	-1

Comparing first the QSort for Child 1 and Child 2, if we look across the bottom row of the matrix above, we can see that whilst there is only one colour that has been placed in the same position by both children: yellow – is given a +1. We see also see that there are two colours that have been placed in opposite positions: red and violet ie whilst one child placed it at +1 the other placed it a -1, and vice versa.

Where all the other four colours have not placed either in the same position or opposite positions – for this simplified exercise we have indicated this with a 0. Therefore, using this crude indicator, out of a total range of +7 as all matching placement of the colours to -4 for all four colours being placed in opposite position, we see that for this paring it has a total of -1, indicating a slightly negative correlation.

Comparing the QSorts of Child 1 and Child 3

Colour	RED	ORANGE	YELLOW	GREEN	BLUE	INDIGO	VIOLET	Total
Child 1	-1	0	0	0	1	-1	1	-
Child 3	-1	1	0	0	1	-1	0	-
Crude correlation	+1	0	+1	+1	+1	+1	0	+5

Looking next at the pairwise comparison of Child 1 and Child 3's QSorts, we see across the bottom row that there are five colours that have been placed in the same position by both children: red, yellow, green, blue and Indigo. With no colour being placed as an opposite (where one child has given +1 and the other -1), and all others being indicated by 0, we see that for this crude indicator these two children's QSorts with a score of +5 out of a possible total of +7, they are strongly positively correlated.

Comparing the QSorts of Child 2 and Child 3

Colour	RED	ORANGE	YELLOW	GREEN	BLUE	INDIGO	VIOLET	Total
Child 2	1	-1	0	1	0	0	-1	0
Child 3	-1	1	0	0	1	-1	0	0
Crude correlation	-1	-1	+1	0	0	0	0	-1

Finally, for this simple exercise, by comparing pairwise between the QSorts of child 2 and child 3, we can see that whilst there is one colour that has been placed in the same positions by both children, indicated: yellow by +1 in the bottom column, there are also two colours that are placed in opposite positions: indicated by -1. So with one +1 and two -1s and all other colours given 0, for our crude indicator this gives a total score of -1, indicating a similar slightly negative correlation, to the comparison of Child 1 and Child 2's QSorts

Correlation calculations& factor extraction across larger groups of participants

These simple pairwise correlation comparisons on the previous page help provide an introductory understanding of correlation analysis for the non-statistician. The Pearson and Spearman correlation equations which Stephenson built on, use similar principles but are much more sophisticated through calculating the Z scores of each variable, which are then correlated. With Stephenson's QTechniques using the normally distributed QSort matrix to force a partial ranking from the research participant, this enables greater weighting to be given to the more extreme values where the judgement of the participant is strongest (in our example the colours placed in the two +1 and the two -1 positions for each child's QSort) compared to the more central columns where the judgement of the participants is weaker (in our case, the three colours placed in the central column with the score 0 for each QSort (McKeown and Thomas, 1993).

Whilst Stephenson's foundational texts (1935, 1953), and their exposition by Steven Brown (1980, 1993) and others provide detailed explanations of how to undertake longhand correlation calculations for the pairwise data matrices, there are now a good number of readily available online platforms.³⁶ On Even novice QMethod researchers can use these platforms to input participants' QSorts and for the correlation analysis to be undertaken automatically within the programme. Below is the resulting correlation matrix of the three children's QSort extracted from using one of these platforms.³⁷

³⁶ A list of these Q method platforms can be found at <https://qmethod.org/resources/software>

³⁷ we will use one of numerous free online QMethod applications, <https://app.qmethodsoftware.com/study/11433> - though for our main research study in the further coming chapters we will run the analysis through a STATA programme ourselves

Correlation matrix of the Childrens' QSorts

Child	C1	C2	C3
C1	1.00	-0.50	0.75
C2	-0.50	1.00	-0.50
C3	0.75	-0.50	1.00

In the matrix above we can see that the diagonal from the word **Child** in the top left to the bottom right cell shows a series of three 1.00 indicating each child's QSort against its self gives a full correlation match. Elsewhere, we see that similar to our crude finding on the previous pages, the correlation between Child 1 and Child 2's QSort is somewhat negative at -0.50 and that the correlation between Child 2 and Child 3's QSorts is also similarly somewhat negative at -0.50. We also see that the correlation between child 1 and child 3 is strongly correlated at +0.75. These results correspond to our crude correlation measure with a high positive score between Child 1 and Child 3, and a somewhat negative correlation both between Child 1 and Child 2 and between Child 2 and Child 3.

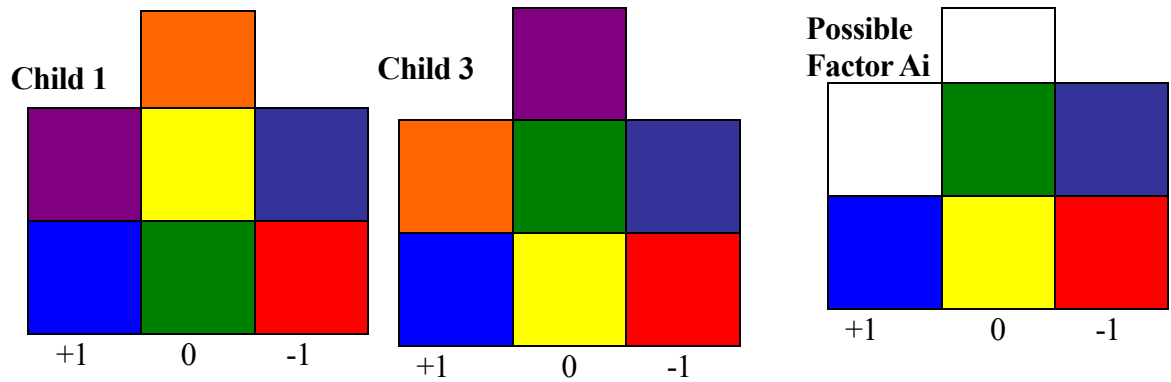
Factor extraction

The simplified example above of the children's colour preferences was provided to help those new to QMethodology and correlation analysis to get an idea of how a research participant undertakes a QSort, and the kinds of insights a correlation analysis comparing three QSorts can provide to a researcher about the research participants subjective views. However, an actual QStudy goes beyond looking at just a few individual QSorts and would typically have between 25 and 60 research participants, selected to ensure there are a good range of viewpoints represented across the population.

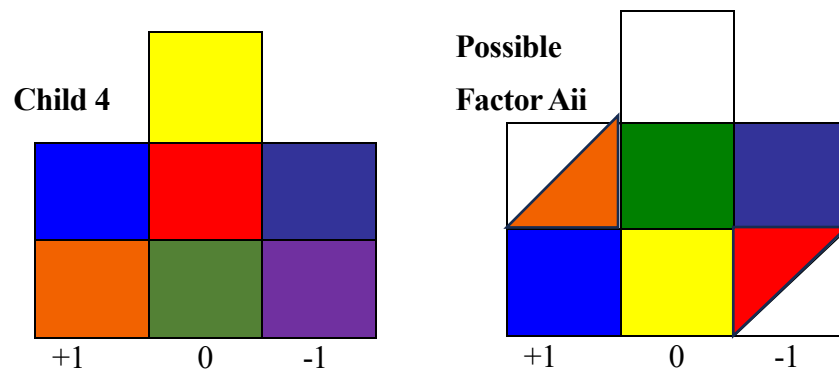
We can imagine that should we have had 25-60 children all give their colour preferences, similar to how we observed a high correlation between the Child 1 and Child 3, we might expect to find other children who also order their colour preferences in a similarly, strongly correlating way. We may also find other children whose QSorts are highly correlated with Child 2, which as you'll remember, was somewhat negatively correlated with both Child 1 and Child 3. This means that using factor analysis, the QMethodologist is able to identify clusters of QSorts who all correlate highly among themselves, showing that they have a similar set of views on the topic under investigation across the population of participants.

This is the key insight about factor extraction from Spearman and Thurstone that Stephenson built on when he conceived of QMethodology: that rather than by-variable correlation and factor analyse – extracting underlying unobserved factors that explain high correlation, such as Spearman's the idea of general intelligence (*g*), what Stephenson's Q factor analysis by-person correlations does, is that it can find shared viewpoints as an explanation for the high correlation among research participants' QSorts.

This insight means that if we look back the original QSorts for Child 1 and Child 3, we can see that both children have placed five of the seven colours in the same column, with only the violet and orange placed in difference columns, with one in a +1 position for one of the children and the other child placing it in the middle column. This means that one of the colours placed at +1: blue, is matching for both QSort, as are both placements of the -1 colours: indigo & red, along with two of the middle column (0): green & yellow. We can see from this detailed breakdown why the two QSorts are so strongly correlated, they are much more match than what first sight may have suggested, in large part because colours placed in one of the three columns of the QSort matrix are taken as being in the same place, even if they are differently ordered.



This enables us to visualise the previously unobserved ‘Factor A’ which accounts for the high similarity, or shared view point, between the QSorts of Child 1 and Child 3. In the language of factor analysis, it is said that both Child 1 and Child 3 ‘load’ highly onto the possible factor A_i , which means not only do they have a strong correlation between themselves, they also have a strong correlation with the newly ‘extracted’ possible Factor A_i . We can at this stage, to assist with the factor extraction explanation, introduce a fourth child who’s QSort is also highly correlated with Factor A, and subsequently with Child 1 and Child 3’s QSorts.



We can see that if we compare the new Child 4's QSort with Child 1 and Child 3's QSorts on the previous page, four of the colours are in the same columns for all three: blue at +1, Indigo and -1 and Green and Yellow at 0. These four colours can be said to be in consensus across these three QSorts. Whilst red was also placed in the same position for Child 1 and 3 at position -1, this is not the case for Child 4, who has placed it in their middle column. Therefore, we can visualise this weakened association for the Possible Factor Aii for the three children by colouring half³⁸ one of the -1 squares in red – as it is a match for two of the children (1&3) and not the third (#4). We can also see that whilst Child 1 and Child 3 placed orange in different columns (at 0 and +1 respectively), Child 4 placed orange in +1, matching Child 3 placement of orange. I have therefore also visualised this weakened association on Possible Factor Aii by colouring half of one of the +1 squares orange. The only colour there is no agreement on across all through Children's QSorts is violet, placed at +1 for Child 1, at 0 for Child 3 and at -1 for Child 4. This means for this Possible Factor Aii, the placement of violet is not part of the defining characteristics and is removed from the factor.

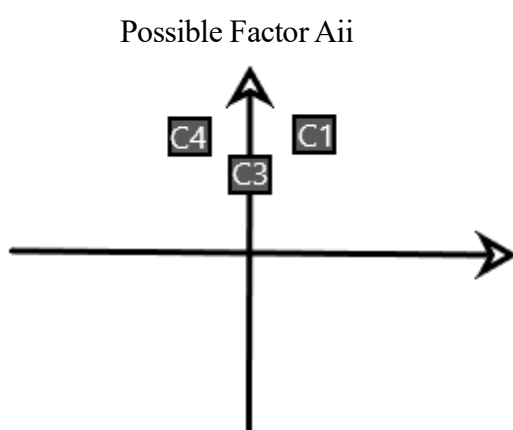
As mentioned earlier, in Q factor analysis greater weight is given for those stimuli placed at the more extremes (in our simple colour preference example: at +1 and -1), therefore the placement of blue in +1 position and indigo at -1 are the strongest identifier of Possible Factor Aii. In the language of QMethod, this would be called 'defining stimuli/statement'. The next strongest defining stimuli for Possible Factor Aii is the placing of yellow and green in the middle column 0, as this was also match across the three children's QSorts. The placement of these four colours in these positions, means that should a further child (#5)'s QSort include these colours in these positions, it would correlate reasonably strongly and 'load' onto Possible Factor Aii, and become part of this 'shared viewpoint'.

³⁸ If our graphic skills were better, we'd have done it with stripes – but hopefully this gives a similar impression.

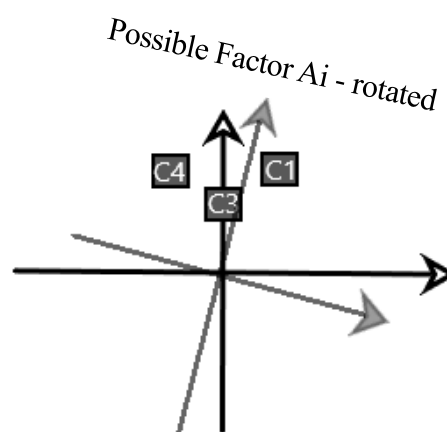
Introduction to factor rotation and varimax rotation.

One important innovation introduced by Thurstone in the 1930s for R method factor analysis (1938) and subsequently used by Stephenson in his development of QMethod, was factor rotation. By hand rotation is where the scatter plot of the correlating items is adjusted and pivoted to find a different fit among the clustered QSorts. This means as part of the interpretation of the findings of a QStudy, the QMethodologist can use their theoretically informed judgement as to which ‘fit’ factor array helps explain the particular phenomenon best (Brown 1980, Watt and Stenner 2012). For example, if we go back to our possible factor extraction from the example of colour preference among children on the previous pages, we could visualise them being plotted against Possible Factor Aii with Child 3 being directly on the factor with both orange at +1 and red at -1, with Child 1 and Child 3 being equally either side of the factor, with only one of those two partial defining stimuli (Plot 1). If we rotated clockwise in the direction towards Child 1, giving greater weight to placing red in -1 position, and away from the placing of Orange in +1 position, as we have in Plot 2 below, we would produce the factor line corresponding to Possible Factor Ai.

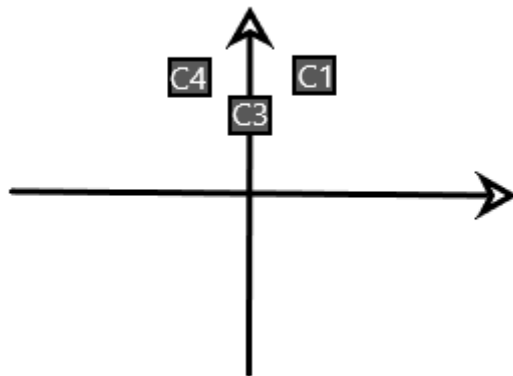
Plot 1 pre-rotation for Possible factor Aii



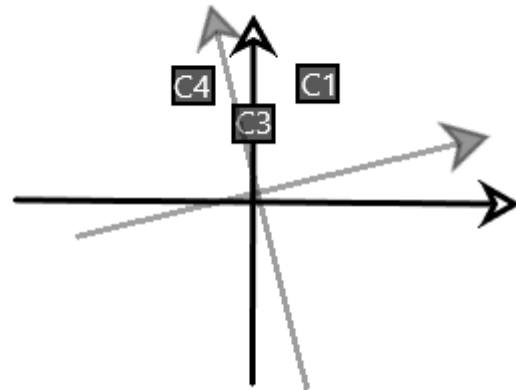
Plot 2 post-rotation for giving greater weight to red being placed at -1 than orange being placed at +1



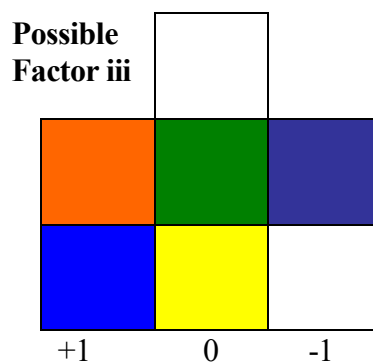
Plot 1 pre-rotation for Possible factor Aii



Plot 3 post-rotation for giving greater weight to orange being placed at +1 than red being placed at -1



We could also consider rotating anti-clockwise, to give greater weighing to orange in +1 position, and lest weighting to red in -1 position as shown in Plot 3 above, we can see that the new position of C3 and C4 in relation to the rotated factor line (greyed arrow) is now equally distanced between C3 and C4 and further from C1, whose correlation (loading on) to the factor is now weaker. This rotated factor would represent a new rotated Possible Factor Aiii as represented by this partial QSort below: with C3 and C4 loading equally high on it – both with the same five out of a possible seven colours placed in matching positions, and C1 loading less strongly (but still with quite a strong correlation) with four of the possible seven colours matching.



Varimax rotation

The simplified example above provides a brief introduction to the idea of by-hand rotation within factor analysis as it is used as part of factor interpretation in QMethodology. Within the QMethod literature, there is a huge amount written about what to consider when undertaking by-hand rotation, including the pros and cons of both *orthogonal rotation* where, like in our example above, a 90 degree relationship is maintained between the factors, ensuring there is 0 correlation between them, or *oblique rotation*: where this relationship is broken enabling factors that have statistical correlation between them (Watts and Stenner 2012 p 119 – see also McKeown & Thomas 1993 and Brown 1980).³⁹

However, for our purposes we don't need to consider this discussion in detail beyond noting their existence as techniques – given our innovative census-based approach to the study population, we're interested in maximise the loading of the QSorts on the factors and minimising those not loading. Varimax rotation is a rotation that can be undertaken automatically via the various platform which maximise the loading of QSorts onto the resulting factors, and so ensures that the greatest amount of variance across the study participants is accounted for (Watts and Stenner 2012 p 122). We will have more opportunity to explore this later in the thesis when we get to the analysis of our field data.

Whether a QSort loads onto a factor is determined by the level of correlation it has with it. (Watts and Stenner (2012) explain that for a QSort to have a significant loading, this is often taken as being that only one in one hundred would load⁴⁰ *'For p, 0.01 level, a factor loading needs to be 0.38 or greater. Any factor loading in excess of that level might, therefore, be said to closely approximate, exemplify or define, the view point of a particular factor.'* (p130)

³⁹ Steven Brown provides this useful comment of theoretical rotation in QMethodology: *'In a sense, theoretical rotation provides an operational basis for what Poincaré (1952) has called "the selection of facts." Nature does not automatically distinguish important from unimportant facts, which only gain their status within the context of a theory. Consequently, as Poincaré says, we must know how to select, and "just as the artist selects those features of his sitter which complete the portrait and give it character and life," so the scientist selects those facts best suited to contribute to "the sense of the harmony of the world"'* 1980 p 261

⁴⁰ *'When we calculate a significant factor loading at 1% level, it is actually telling us that 99% of all Q sort wouldn't get this close'* (Watts and Stenner p131)

The sections above have explored the foundational and core QMethod literature to provide an overview to each of the main concepts and, through the use of a simplified colour preference example, we have introduced the key QTechniques tools and shown how a simple QStudy may be developed. This introduction and simplified example will serve us well when we get to our case study and analysis, which rather than considering just three or four children's colour preferences, will look at the priorities of 557 adults in one community. Before we introduce our case study, first we'll look at how QMethodology has been used within political science literature and deliberative democracy specifically.

The following is a useful summation of QMethod and QTechniques from Steven Brown:

'Simply stated, Qtechnique is a set of procedures whereby a sample of objects is placed in a significant order with respect to a single person. In its most typical form, the sample involves statements of opinion (QSample) that an individual rank-orders in terms of some condition of instruction-e.g., from "most agree" (+5) to "most disagree"(-5). The items so arrayed comprise what is called a QSort. QSorts obtained from several persons are normally correlated and factor-analysed by any of the available statistical methods. Factors indicate clusters of persons who have ranked the statements in essentially the same fashion: Explanation of factors is advanced in terms. of commonly shared attitudes or perspectives. QMethodology is the body of theory and principles that guides the application of technique, method, and explanation.' 1980 p 506

QMethodology as a tool for deliberative democracy

Deliberative democracy, sometimes known as discursive democracy, is a conceptualisation of democratic practices where there is an emphasis on the centrality of deliberation to the decision-making processes in a truly democratic system. We can find the underpinning of the deliberative democracy discourse in the influential works of 20th century political philosophers and social theorists John Rawls and Jürgen Habermas.

Rawls, who, as mentioned previously, in his theory of justice argues that a just society can only be realised through consideration and deliberation from an ‘*original position*’ where participants are behind a ‘*veil of ignorance*’ and unaware of their ‘*place in society, his class position or social status, nor does anyone know his fortune in the distribution of natural assets and abilities, his intelligence, strength, and the like.*’ (1971 p.137). Rawls’ famous thought experiment therefore requires a ‘*deliberation within*’ exercise as the political theorist considers the implications that are fair to all in society, secures equal rights and the fair possibility for participation for all members of society.

Similarly, Habermas advocates for replacing existing representative democratic institutions with more deliberative forums (2002). He argues that the traditional representative institutions with their overemphasis on bureaucratisation, administration and social control are too easily captured by political elites, business and ideological interest, whilst more truly democratic decisions would flow from inclusive deliberative forums which place human rights at their centre and are based around all individuals’ political right to participation as part of the principle of popular sovereignty (1996). Habermas does however argue that we can only access moral truths through transparent public discursive deliberations, and that individual internal deliberation within can only take us part of the way (1984). This is a point we’ll come back to in our discussion section toward the end of the thesis.

The term deliberative democracy was coined by Joseph Bessette (1980) in a book chapter discussing the role of deliberation within the institutions of US constitutional democracy, as a necessary balance to stem majoritarian popularism which may arise through purely majoritarian electoral representative democracy.⁴¹ Since the 1990s, localised and often community-led deliberative democratic exercises have become more common as a means of involving the public directly in agenda-setting and solution consideration exercise, including around participatory budgeting (Cabannes, 2018; Cabannes, 2023) , peace and reconciliation (Garry, 2016), and in the last decade, the climate crises (Willis et al., 2022).

In his seminal 1990 book ‘Discursive Democracy: Politics, Policy and Political Science’ deliberative democracy stalwart John Dryzek, dedicates a whole chapter to how QMethodology is a particularly good tool for researching political discourse and democracy, in comparison to ‘R’ method surveys which he spends the preceding couple of chapters outlining the weaknesses and issues as a political science tool. Dryzek proposes that QMethodology can be used a ‘reconstructive tool’ able to contribute to ‘discursive democratization’ enabling citizens to communicate freely about their worlds and to express them in a meaningful way to decisionmakers (Robbins and Krueger 2010).

Celia Kitzinger (1986) proposes the idea of democratising QMethod tools to enable collective judgements. A call, as we will argue later, we believe our approach is in part, taking up.

‘I would like to explore the possibility of “democratizing” Q by, for example, using collective QSort constriction from a group (such as a self-help group or a political campaigning group). Debate within the group could be represented in the form of a collective QSort composed by the group, and the group, as a group, could interpret the factors that emerged. This would be a starting point for attempting to find a way in which control over the research process could ultimately be handed over completely to the participants themselves.’ (1986, p 168 cited Dryzek 1990, p184, see also Billard 1999)

⁴¹ Earlier in 1774, the conservative Anglo-Irish politician and academic Edmund Burke spoke of the UK Parliament as ‘a deliberative assembly of one nation, with one interest, that of the whole; where, not local purposes, not local prejudices ought to guide, but the general good, resulting from the general reason of the whole.’ (Burke, 1856 Vol 1 p 447-8)

Chapter two: Method and fieldwork

This chapter is concerned with the context and background to the Kottathara field site in Kerala, South India. Within this we discuss the relevance of the Human Development Reports at the local context. This chapter also discusses the specific features and rationale for the case study site. This includes the basic demographic overview of the field site. This is important because the field site has its own 2010 HDR which is used as a reference point for the case study. This is a unique document as one of only a few panchayat-level formal HDRs produced in India. This is the most localised human development report ever produced, and this, along with the diversity of the communities in the case study ward, was the reason for choosing this field site.

The following section details the methodology of the fieldwork. This includes the necessary permissions, field assistants and logistics for the fieldwork. There is a detailed description of the method undertaken to produce the Q Sample used for the study. This involved analysis of gram sabha meetings for the past two years, and interviews with community leaders and representatives to produce as wide a set of statements of issues of concern for the local community. This was then mapped against Nussbaum's proposed list of core capabilities. An overview of the fieldwork is provided where 565 individuals undertook a Q sort which enable them to show their preferences as to which issues were most and least important to them.

Research questions

Building on from this literature, this study will explore the following questions:

1. Is it possible to meaningfully capture individual priorities and values across a wide range of issues?
2. To what extent do citizens priorities for development match or differ from the snapshot provided by a local HDR?
3. Does aggregating individual priorities across a community and analysing these priorities allow for meaning weighted measurement towards achieving issues?

Drawing from both the human development and deliberative democracy literature outlined in chapter one, a small field study was undertaken to pilot a method of working with a community to capture individual expressed values and priorities for development and looking at ways of aggregating them into a community profiles. The approach was developed in a way as to be able to be undertaken by the community, individuals, local elected representatives (ward rep) and local civil society to explore what issues are being highlighted by which members of the community and a particular moment in time. It was therefore important that the exercise engages the locally elected representatives from the start and is seen as an inclusive exercise for the whole community.

As with any democratic exercise, this aggregate expression of priorities is both temporally and spatially specific and whilst comparison with a duplicate exercise in other locations would reveal limited insights other than methodological, comparison with the same location over time would reveal interesting insights to how preferences change over time either along with election cycles or following a specific shock such as drought, flooding and disease outbreak. In this study I will however only have scope to do one round of fieldwork, with the potential for post-doctoral follow up study.

Analysis of Sub-national Human Development Reports

National and Regional Human Development Reports (HDRs) have been ubiquitous for the global south throughout the 1990s and first decade and a half of the 2000s, being written under the direction of the UN resident representative through the UNDP country office at the request of the national and in partnership with key central ministries such as planning and/ or the social sectors such as health and/ or education. Over 150 countries have had human development reports prepared, with over 800 at national, regional and local levels.⁴² The majority of these were national HDRs, especially during the period of the millennium development goals from 2000 – 2015, with each successive report choosing a particular focus theme, such as conflict, women's empowerment or education.

Subnational HDRs however have only been taken up in much few countries, and usually at the request of a central planning agency, with technical guidance from the UNDP country office, and primarily written by national academics – usually economists and statisticians under commission. There have been one off sub-national human development reports for particular cities or provinces, such as Bogotá, the capital of Colombia and the Autonomous Region of Bougainville, Papua New Guinea, and the Autonomous Region of Ache, Indonesia. There have however been only two countries have taken up commissioning sub-national human development reports systematically, Ghana and India. Whilst in India, this were initially at the state level, with the Madhya Pradesh HDR 1995 reportedly the first sub-national HDR anywhere in the world (Katoch 2003) There state human development report used the same model, of whilst being commissioned by the state body, being produced independently by academic experts, often with support from officers from the national statistical office, to provide a baseline on human development in the state.

⁴² National and Regional Human Development Reports: Report Preparation Toolkit
<https://hdr.undp.org/about/national-and-regional-human-development-reports-report-preparation-toolkit>

A text analysis study was undertaken at the outset of our doctoral research to analyse these Ghanaian (district) and Indian (state and district) HDRs, to explore to what extent they responded to specific differentiated needs of the study area. We found that whilst the report tended to claim to understand the local context well, the statistics presented and topics covered were almost universally standardised to typical issues of education, health and economy – reflecting the high profile these both intrinsic and instrumentally important areas of citizens levels were to their human development achievements. No attempt was made in any of the local HDRs to engage with the populations they studied, and statistics were drawn exclusively from national datasets.

To exemplify where attempts have been made in local HDRs to have some limited engagement with the local communities, on the next page we have recreated a table (8.1) from the Tema District National Human Development Report 2004.⁴³ For this report, the commissioned organisation conducted a household survey in five communities in the Municipality. Rather than any kind of sample or representative method, they organised focus group discussions with ‘*opinion leaders*’ in the five communities. In addition, members of the Municipal Administration directed the choice of communities to be surveyed. The sites were chosen to include both rural and urban communities, whilst one community (Ashaiman) was chosen as it was a recipient of migrants, and Community 2 large senior citizen population. Twenty households were interviewed in three of the locations with a further 131 across the two large urban areas, with a total of 191 questionnaires completed.

Scanning the issues mentioned across the six topics in for the five selected field site area for the Tema HDR, it is clear that the issues highlighted could have come from conversation with local elected members, and there is no indication on the prevalence of concern, priority or anything about the respondents who raised the concerns.

⁴³ Tema District Human Development Report 2004, UNDP p. 83
<https://hdr.undp.org/content/tema-district-national-human-development-report>

Reproduced table of Development Challenges in Five Communities:
Tema Municipality Tema District National Human Development Report 2004.

	Human Security	Health & Sanitation	Education	Infrastructure	Social	Employment
Ashaiman	There is a need for more police stations. Street lighting is poor in some parts of the community	There are not enough health facilities. Those that exist do not have adequately qualified health personnel. Sanitation is poor	Require more senior secondary schools and vocational institutions.	Poor drainage causes flooding Insufficient markets Need more traffic lights to ease congestion Insufficient lorry parks. Lack of development planning is leading to haphazard siting of houses.	There are too many children on the streets There is a growing # of deviants There is a lack of recreational centres Problems with accommodation	Not enough employment opportunities
Tema Manhean		Poor sanitation: refuse collection is not happening. Gutters are choked.	Lack of dedicated teachers in the public schools. There is more supervision in the private schools. Community library lacks books		Lack of recreational and community centres	Lack of skills in the community Limited avenues for job creation.
Kubekro No. 2		Do not have proper toilet facilities		Parents are concerned about young children having to walk to school in nearby village. Would wish that a pre-school is established in the community.		Limited opportunities for job creation because the community does not have basic utilities. Some members of the community have skills, however there is a need for start-up capital.
Community 2		Sanitation fees are considered to be too high. Lack of public toilets & urinals. Choked gutters			There are no recreational or vocational centres	Problem of collecting loans from a microcredit facility has held back the provision of loans to new applicants Re-deployment in the 1980s has led to loss of jobs of men in the community.
Kotobabi No. 2		There is no health post There are no public toilet facilities				Farming opportunities drying up because of loss of land to estate developers

Case study methodology

The research methodology adopted for this study is that of a focused case study. Yin (1994) defined a case study as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, [and] relies on multiple sources of evidence” p13. The case study enables a detailed examination of a localised reality of one particular community. Gary Thomas (2011) provides guidance on case selection. This includes considering whether case is a key case, an outlier case, and/ or a local knowledge case (p 77) We argue that because there have only been two panchayat level human development reports ever produced, our case is a key case, and also relies on some local knowledge – as only through previously studying in Kerala was the case known to the author.

Kerala’s way to development ('model') and its people’s campaign

Within international development literature, the state of Kerala in Southern India has become synonymous with being a positive outlier. This is in no small part due to analysis of the socio-economic history of Kerala first undertaken by K. N. Raj and colleagues at the Centre for Development Studies, Thiruvananthapuram shortly after he founded it in 1971, and taken up enthusiastically in much of Amartya Sen and his long-term collaborator Jean Drèze’s subsequent writing on India. Whilst it has come to be known as the Kerala ‘model’ of development, both Raj as well as Drèze and Sen we’re emphatic that the analysis is about understanding processes and not about devising a model based on Kerala’s developmental trajectory for other states or countries to follow (Kannan 2023, Chakraborty 2005).

In 'An Uncertain Glory (2013), Drèze and Sen are at pains to distance themselves from any idea that their analysis of Kerala’s development trajectory amounts to a ‘*model of development*’. They write ‘*The term ‘Kerala Model’ has often been used in this literature, and more distressingly has occasionally been attributed – entirely erroneously – to our analysis. We have never used this particular rhetoric. There is much to learn from scrutinising the experience of Kerala – and of other highly performing states – but there is little evidence for seeing Kerala as a model to be mechanically emulated.*’

In 1971, K. N. Raj was a member of the UN's Committee for Development Planning, and its chair, Nobel economist Jan Tinbergen suggested to the committee members that it may be useful to undertake studies in their respective regions, and the study was commissioned with a budget of \$15,000 and a working title of 'Economic evaluation of selected measures against poverty and unemployment and their implications for development policies in densely populated regions: a case study of methodological, organizational and policy questions with reference to Kerala' (CDS 1975).

In the study foreword, UNDESA summarises why Kerala makes for an interesting study:

'With an area of 38.9 thousand square kilometres and a population, at the time of the census taken in 1971, of 21.3 million, Kerala is one of the most densely populated regions in the developing world. Its per capita income is low (about one seventh lower than the average for India as a whole), but its rate of literacy is high (twice the rate for India as a whole), and it has also had a long tradition of providing in sizable volume such services as education and health to the general public.' p.iv

This detailed study which drew on extensive fieldwork throughout the state, outlines how usual expenditure measurements on foodgrain underestimated food intake, and that both provision of free lunches for primary-aged children, and the significant land reforms in the state since the mid-1950s stimulating a shift from small holding to tapioca production helped to raise food intake among lower-income groups (CDS 1975).

The study further found that Kerala had high levels of education across its districts and the drop-out rates are significantly lower than in the rest of India, widening the scope for vertical mobility. The achievement of Kerala in lowering mortality rates and raising life expectation to almost the levels of more developed countries is attributed to the widespread network of state-run health services and the scale on which they are used. There was also evidence of a recent sharp decline in birth-rates, which may be down to not the extension of family planning through the health services, as well as to other sociological factors such as increase in the age of marriage, and how far these have been affected by increase in education, particularly among women (CDS 1975).

In their tour-de-force 2013 book: ‘An Uncertain Glory, India and its Contradictions’, Jean Drèze and Amartya Sen highlight how Kerala’s development path can be seen as a precursor to how other Indian states have raised living standard (Drèze and Sen 2013). For example, Kerala along with Tamil Nadu and Himachal Pradesh has had relatively well functioning public services – especially (but not only) in fields such as health and education, which are crucial for fostering participatory growth that ensures a rapid improvement in peoples living standards (p xi). They do show how Kerala continues to ‘top the league’ in many important development indicators, including,

- Having a relatively high female life expectance of 77 year (2013), compared to below 65 in many large north India states (p. 72)
- Female literacy of 95% (2005), well above the second place of 79% in Himachal and compare to an all-India average of 55% and a low of 37% in Bihar and Jharkand (p74)
- Stark disparity 2005 Human Development Index and proportion of population that is multidimensionally poor, with Kerala at 0.97 and 12.7% respectively, well above second place Hiumachal Pradesh at 0.85 and 29.9%, and an all-India average of 0.40 and 53.7% (p.76).

They see that other states, especially in the South but also smaller northern stats such as Himachal Pradesh are starting to catch up.

‘not so long ago, Kerala was considered as an anomaly of sorts among India states. Its distinct social history and political culture appeared to set it apart, and to make it difficult for any other state to follow a similar route. Today the situation looks a little different. Kerala is still ahead in man ways, but some other states have also made great strides in improving quality of life – not in exactly the same way but in ways that share many interesting features with Kerala’s own experience.’ p80

One comparison they draw is around the social movement of Kerala and its neighbouring state of Tamil Nadu: *'the historical burden of social inequality has been significantly reduced in one way or another. In Kerala and Tamil Nadu, principles of equal citizenship and universal entitlements were forged through sustained social reform movements as well as fierce struggles for equality on the part of under-privileged groups – especially Dalits'* p. 79

Selection of field site

As the size of a locale of development analysis decreases, the democratic justification for directly engaging the members of the community increases. Exercises in analysing human development across large populations (countries or states) have rarely, if ever, directly engaged the citizens covered by the analysis and usually just use official government data so portray the status of the population. This is understandable given the size of the population covered usually being in the millions. However, at the local level, as the size of population covered reduces, to not directly engage the citizens in the process undermines any democratic legitimacy of the exercise. This direct engagement should not just be frame to extract data about their current status: often restricted to income, education and health, but should enable citizens to define what for them the priorities for development are across a broad range of areas of human activity. With almost universal coverage of often heavily standardised human development indicators at the global and national levels, as well a good number at the subnational level especially for major/ capital cities as well as for states and districts have also been produced.

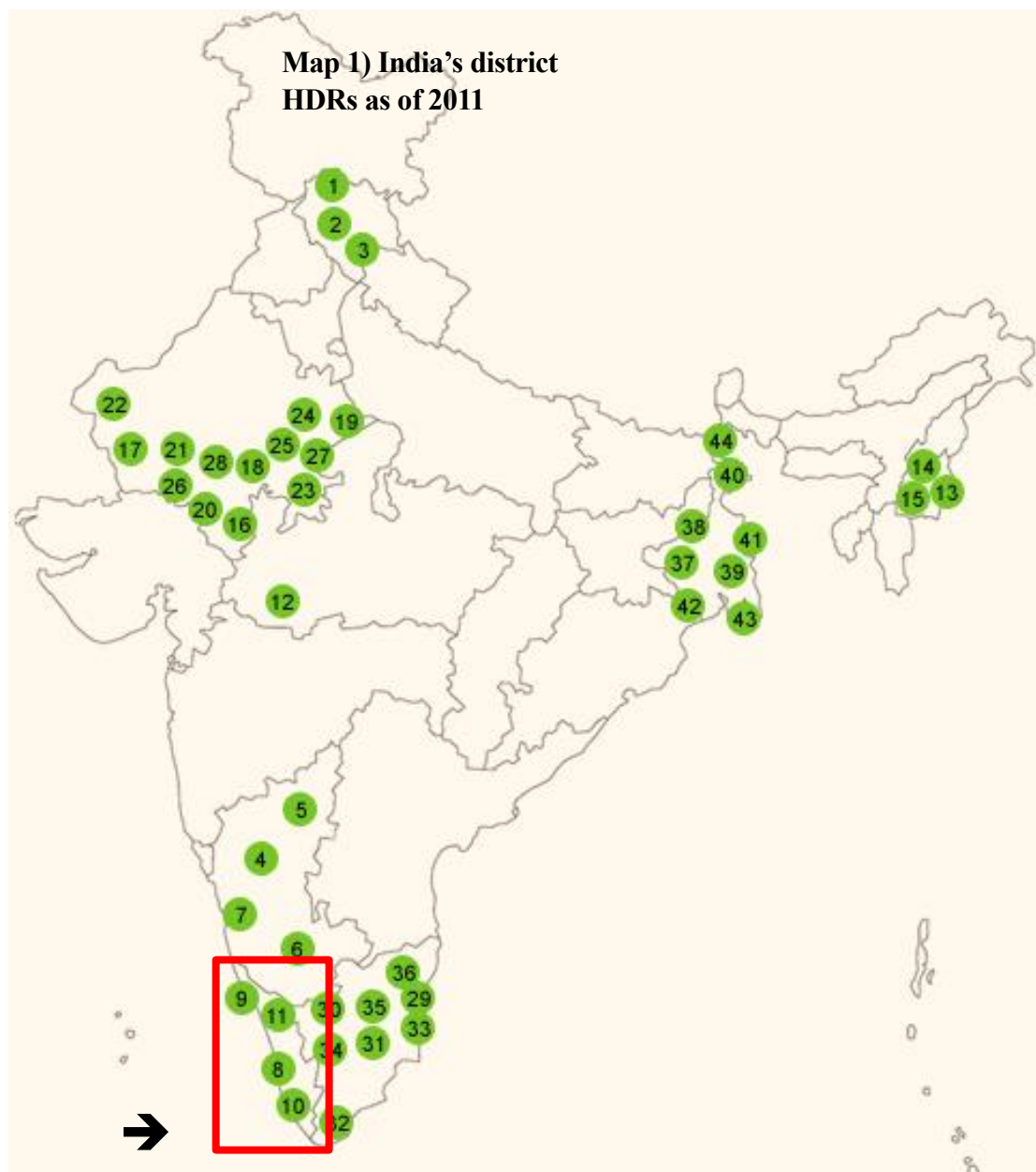
Having reviewed the range of human development reports (HDRs) produced globally, by far the greatest number has been in India – commissioned over the last 20 years by the now defunct national planning commission, often in conjunction with state governments. This includes two national HDRs, at least one HDR for 29 of the 36 states/ union territories and over 50 district level HDRs (see map 1 below).

However, within the southern Indian state of Kerala, alongside state and district human development reports (map 2), the state commissioned two village or *panchayat* level HDRs. The smallest of these two *panchayats* is Kottathara in Wayanad district in North Kerala, with an approximate population of 10,000 people. Ward three of Kottathara is the ward with the smallest number of households (263) and is also one of the most diverse, with the community that households identify as being approximately a third Muslim, a quarter Kurichiya – a scheduled tribe with significant land hold in the area – a quarter Christian, as well as a number of household of other Hindu forward and backward castes and a small number of Paniyar community, a marginalised historically landless tribe, who have primarily worked as agricultural labourers.

Human Development Reports that residents of Kottathara ward 3 are represented in

HDR	Level	Year	Population	By who?	For who?
World	Global	1990-	~7,000m	UNDP	Aid agencies
South Asia	Regional	annual	~1.5	MuHHDC	Civil Soc
India	National	01&11	*1,210.2m	UNDP / PlanCom.	Nat. Gov
Kerala	State	2005	*33.4m	CDS	State Gov.
Wayanad	District	2009	* 816,558	CDS	Dist. Gov
Kottathara	Village	2007	**10,862	CDS	Local. Gov

Compiled by the author from each HDR



By 2011, India had produced two national human development reports (2001 and 2011), with its population growing by 181.5 million to 1.2 billion between the two. At least one state human development report had been produced for the majority 29/37 states/ or territories and 44/718 sub-state district human development reports, including Kerala in the south-west tip of the country (map 1 – red square). Kerala is culturally the most diverse state with 54.7% Hindus, 26.6% Muslims, 18.4% Christians at the 2021 census. Kerala has high social indicators of health and education, and a high outmigration – especially to the gulf, which provides a significant remittances back to the state.

At 38,863 km², Kerala is around an 8th (16%) of the land mass of the UK but with approximately 34.7 million citizen (up from 33.4 million at the 2021 census), over half the 67.3million in the UK, it has a population density of 859 persons per km², over three times that of the UK.

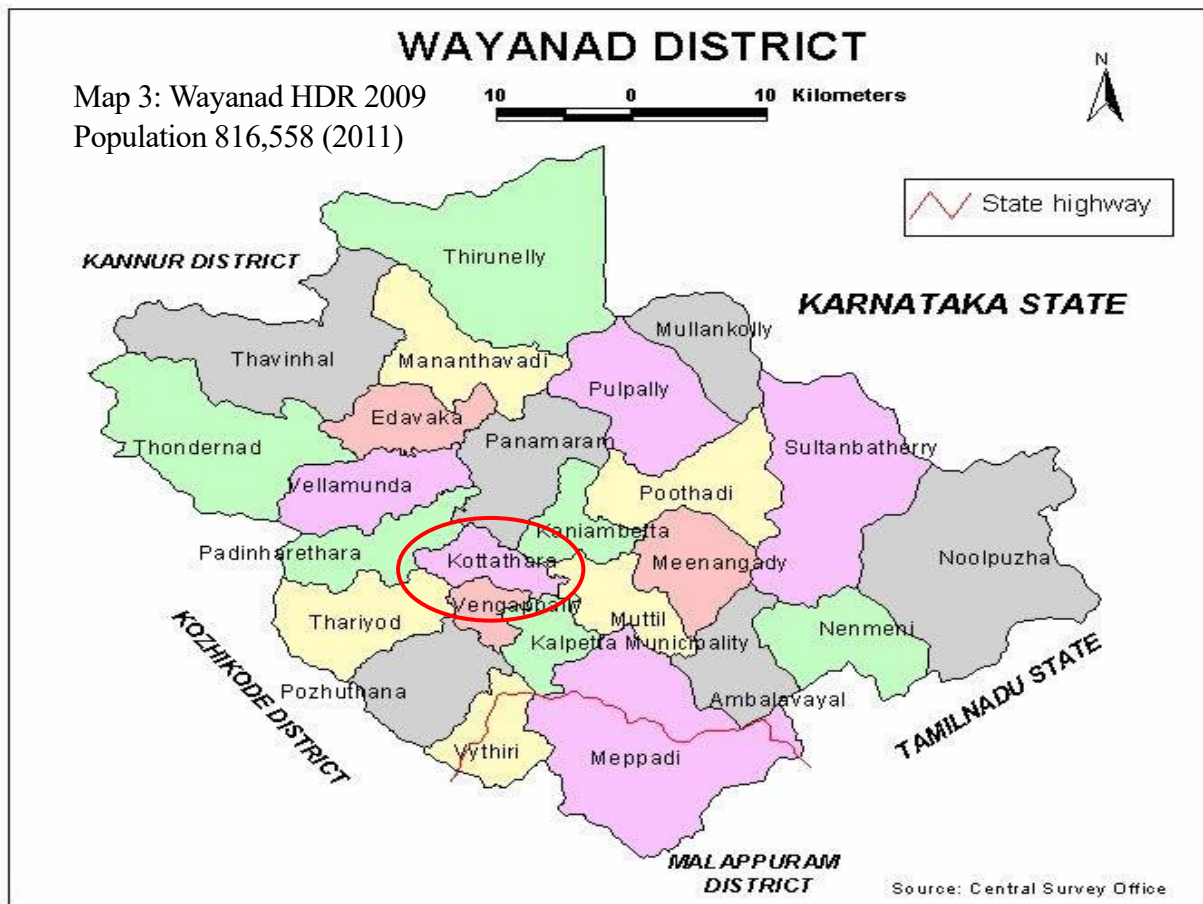
In India, Kerala has just 1.2% of the landmass but over 3.4% of the population, and double the population density of the country as a whole (434 persons per km²)

<https://forest.kerala.gov.in/index.php/about-us/kerala-state-profile>

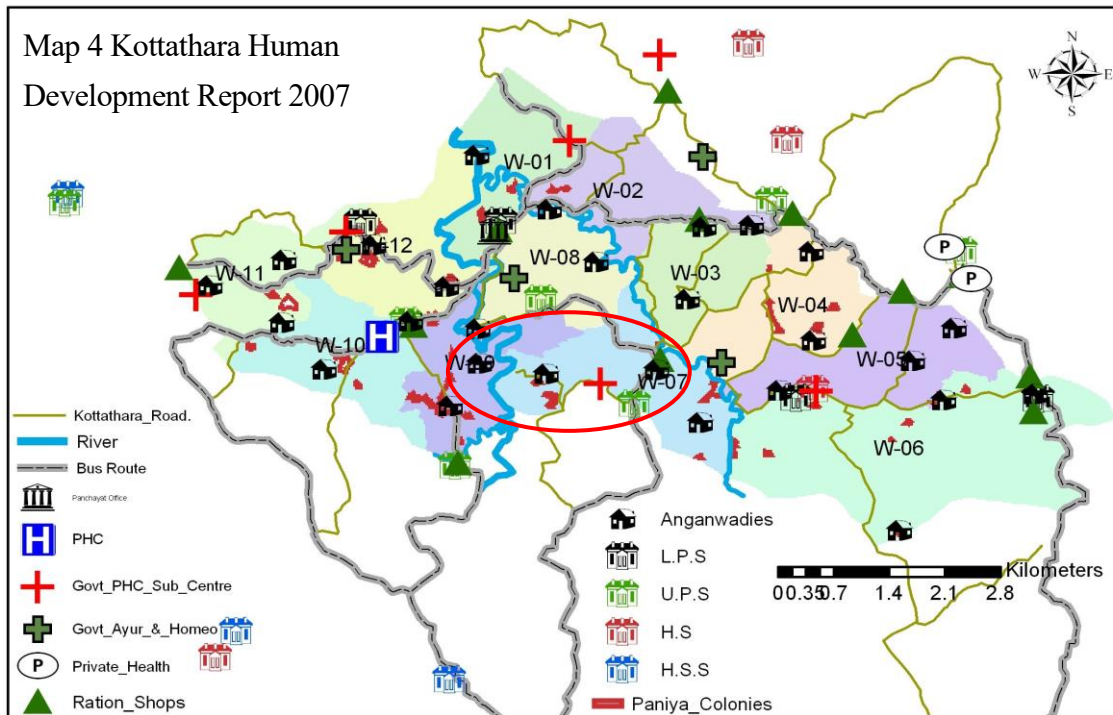


The government of Kerala launched an ambitious programme of devolution to the local government in 2006 called the people's planning campaign (Frank and Isaac 2000) which provided significant funds and powers for planning to local panchayats (rural villages) and urban bodies. The Kerala State Human Development Report 2005 was commissioned by the State Government with support from the UNDP and written by academics at the Centre for Development Studies (CDS), Tiruvananthapuram. For district reports were also produced in Ernakulam (8), Kannur (9), Kottayam (10) and Wayanad (11) (map 1 red box). Alongside the four district HDRs, two panchayat level HDRs were also commissioned, one in Kottayam district, Madapally and one in Wayanad, Kottathara.

www.undp.org/content/dam/india/docs/human_develop_report_kerala_2005_full_report.pdf



Of the Kerala districts, Wayanad has some of the lowest human development indicators in the state with the second lowest HDI at 0.753. Wayand district is home to the largest scheduled tribal population in the state, which at the 2021 census stood at 151,443, almost a third (30.1%) of a total 484,839 across the state.

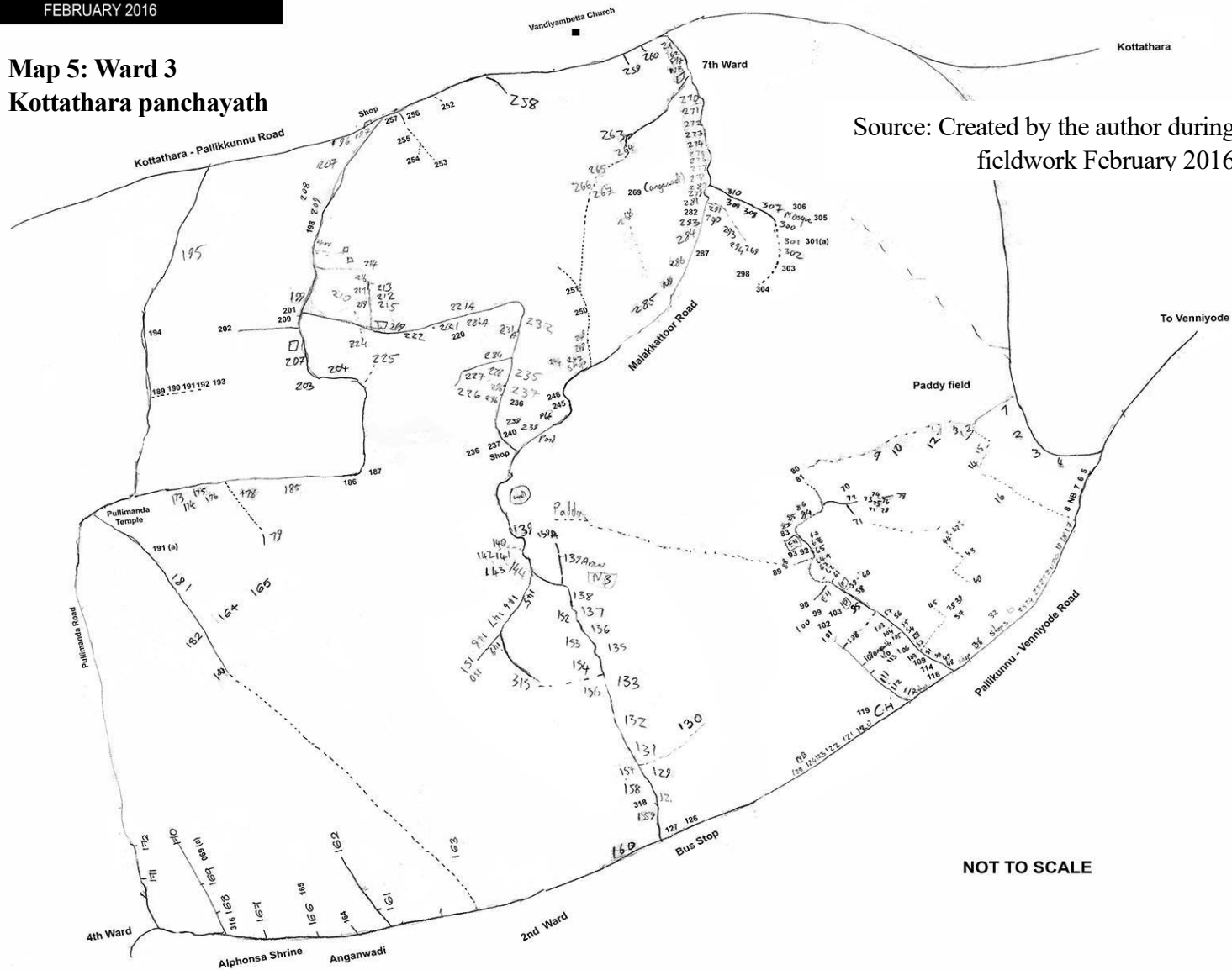


Map 4 shows Kottathra panchayat and the location of ward 3 in the red ellipse. Kottathra panchayat had population was 10,862 in 2011 and it has an elected panchayat (village) council make up of 12 wards, each with an elected member. In 2009 the panchayat ward boundaries were revised. Below is the table showing the Kottathra panchayat population by community and ward (2007). Highlighted in red is ward 10 which was by far the smallest of the wards with 182 households. However, since 2007 there has been an administrative reorganisation and this ward is now known as ward III and has

WARD 3 KOTTATHARA PANCHAYATH
FEBRUARY 2016

Map 5: Ward 3
Kottathara panchayath

Source: Created by the author during
fieldwork February 2016



Kottathara panchayat households (2007) by ward and community

Caste or Tribe	Kottathara communities: distribution by ward # (2007)																								Total	
	W1	%	W 2	%	W 3	%	W 4	%	W 5	%	W 6	%	W 7	%	W 8	%	W 9	%	W 10	%	W 11	%	W 12	#	%	
Paniyar	38	15.2%	9	3.1%	21	6.2%	17	5.2%	12	4.5%	45	19.2%	71	25.7%	19	6.2%	58	17.9%	18	9.9%	21	8.2%	64	393	11.7%	
Other ST/SC	70	28.0%	42	14.3%	46	13.5%	90	27.7%	88	33.2%	57	24.4%	19	6.9%	54	17.7%	52	16.0%	28	15.4%	44	17.3%	52	642	19.2%	
OBC Non-Muslim	44	17.6%	31	10.5%	37	10.9%	60	18.5%	46	17.4%	46	19.7%	12	4.3%	7	2.3%	17	5.2%	9	4.9%	42	16.5%	60	411	12.3%	
OBC Muslim	1	0.4%	97	33.0%	126	37.0%	9	2.8%	68	25.7%	3	1.3%	32	11.6%	211	69.2%	56	17.3%	69	37.9%	59	23.1%	7	738	22.0%	
FC Hindu	26	10.4%	4	1.4%	24	7.0%	59	18.2%	35	13.2%	80	34.2%	116	42.0%	7	2.3%	16	4.9%	24	13.2%	14	5.5%	35	440	13.1%	
FC Christian	71	28.4%	111	37.8%	87	25.5%	90	27.7%	16	6.0%	3	1.3%	26	9.4%	7	2.3%	125	38.6%	34	18.7%	75	29.4%	83	728	21.7%	
Total	250	100.0%	294	100.0%	341	100.0%	325	100.0%	265	100.0%	234	100.0%	276	100.0%	305	100.0%	324	100.0%	182	100.0%	255	100.0%	301	3,352	100.0%	

Whilst Kerala is the most diverse state in India, we and see that Kottathara panchayat, is also very diverse with no more than a quarter and no less than ten percent from any of the listed communities. From the end column, we see that OBC muslim is the largest community at 22.0% of household, followed by FC Christian (21.7%), and Other ST/SC (19.2%). Communities with lower number of households include FC Hindi (13.1%) and OBC – Non-Muslim (12.3%), with the tribal population of Paniyar as the smallest but still significant at 11.7% of the total households. from any We can see from the table above that in at the time of the 2007 Kottathara Human Development report, Ward 10 was by far the smallest, with just 182 (5.4%) of total households, whilst also having a good representation from across the different communities.

Data collection

The method will use for aggregating expressions of values and priorities is Q method which enables a quantification of qualitative information (ref). Each individual adult citizen of the ward in each of the 280 households will be asked to complete two 'q-sorts', a ranking exercise of statements, the first relating to values and the second to priorities for development. The analysis is undertaken using STATA 14 and the programming for analysis of up to 1,000 cases (or more) has been completed. Q method effectively clusters the ranking of statements and enables analysis of which issues are being prioritised by which respondents. It will allow for analysis by gender, age, income group, caste and area. It will also enable identification of those views that do not clearly conform to a particular cluster. It must also be clear that whilst all members of the community are welcome to participate, they are free to decline also.

Permissions and pre-research visit to the field site.

Following scrutiny of my university affiliations and an overview synopsis of the research, three-year research visa has been granted by the Government of India to undertake this research. Formal registration with the foreign resident registration office has been completed and the local police and special branch informed of the research and contract details of myself and my research assistants will be provided to them for monitoring.

In Jan 2013, I visited the field site and with permission of the then panchayat president, council and ward rep, I visited 200 out of the 280 households in the ward to undertake a basic demographic survey and to ask if they would be happy for me to come and ask questions on priorities for development, with the exception of two households, all residents I was able to speak to were happy for me to come and speak to them as part of my research. I was also able to attend a gram sabha meeting in the ward where the community was formally introduced to me by the ward rep. I was also able to speak with the wards tribal promoter from the paniyar community as to whether she advised invited the paniyarr to participate, which she did and confirmed she would be happy to facilitate (2.2.5.1).

In December 2015, I returned to the field site and I met with the newly elected panchayat president and ward three representative, along with the panchayat secretary. After a detailed conversation through an interpreter about the research and method to be undertaken, they confirmed they were happy for me to go ahead with the fieldwork in ward three. A letter confirming permission from the panchayat president has been requested and will be provided on return. The ward representative proposed a ward meeting within the first week of the fieldwork, where an overview and purpose of the research will be explained to community members by myself through an interpreter and for the ward representative and other community members to ask any questions before the household visits start. On returning to the field site in February 2016, I sought and received permissions in writing from the district collector and the panchayat president and spoke in detail with the ward member. An introduction note in Malayalam and English was then delivered to each household giving an overview of the research and clearly stating that participation is optional.

Research assistants

To enable the field work to be completed in the five weeks I am able to take for the research, I will be appointing a team of six to eight research assistants; three to four male and three to four female. The research assistants will work in pairs with me on a rota basis, two pairs a day, to visit the households. Following concerns voiced by a couple of residents during the 2013 visit that they wondered if I was a missionary, as my research assistants at that time were both Christian, I will be explicitly looking for my research assistants to be from different communities, including Muslim and Hindu. The research assistants will be remunerated at the going rate for student RAs, which is Rs500 per day.

Research participants

All adult residents in ward three of Kotathara panchayat will be invited to undertake two individual Q-sorts, the first on values and the second on priorities for development. Each household visit will be undertaken by myself with two research assistants, one male and one female. The visit will start with an explanation of the research and a short demographic survey by me through an interpreter. This will include a clear statement that participation is optional and that they are welcome to withdraw from the research at any point. Once informed consent is confirmed, all adults who are able and willing to be respondents in the household that are available will do an individual Q-sort. I will undertake the Q-sort game with the male participants with the research assistant and the female research assistant will undertake the Q-sort with the female adult household members. All responses will be anonymised at the point of recording and responses will only be identifiable by their demographic features for analysis. No payment will be given for participation.

Specific ethical considerations: Vulnerable members of the community

Elderly and learning disabled: Any adult considered vulnerable will be invited to participate with a family member. Any lone vulnerable adults will be invited to participate and two research assistants will be in attendance at all times.

Youth: there will be no responses sought from any under 18s, though if they wish to attend the community meetings with their relatives, they will be welcome.

Paniyar community: within ward three there are some households (known as colonies) of a very marginalised tribal community, paniyar. Since the research is intended to be as inclusive of all members of the ward as possible, and due to their significant marginalisation and vulnerability, the tribal promoter – a member of the paniyar community from another ward in the panchayat with responsibility for assisting the paniyar community to access special programmes – we work with one of the research assistants to ask the paniyar households if they would like to be part of the study along with the rest of the community.

Feed back to the community

A community meeting we be arranged towards the end of the fieldwork to feedback the initial finding of the responses. The original plane was that analysis had been undertaken within a year of the fieldwork, the analysis of the anonymised data will be made available to the ward rep in an accessible format and presented by one of the research assistants at the next gram sabha meeting. However, as analysis took much longer – and then there was flooding in the area, I arranged to meet the ward rep after one year to let her know how it was progressing. Despite a global pandemic restricting my travel to India, the plan is still to seek feedback from the ward rep and members of the community as to whether the information provided was of interest/ helpful for their discussions of priorities within the ward, and whether they would have and suggestions should a second round be undertaken in the future.

Using Qtechniques in fieldwork

Q Methodology holds a number of interesting properties for the discussion of local democracy, as well as some challenges which this chapter attempts to address through an analysis of the responses from the 557 citizens of Ward 3, Kotthathara Panchayat. The identification of shared and unique positions, priorities or areas of interest can help not only in the formation of political discourses but also in forming less obvious coalitions around shared positions, and for finding common ground between those with differing priorities. It can also be used to help identify any particular minority points of view which may otherwise not be known and assist with ensuring all voices are heard.⁴⁴

The method starts with the identification of a topic which the researcher wishes to find out peoples' subjective view on. The discourse: 'noise' or 'chatter' around the identified topic, spoken or internal, Stevenson names as the *Concourse* (see 'Concourse Theory of Communication' above). The researcher then sources a representative range of statements known collectively as the Q sample from this concourse (see above). These statements can come from numerous sources and depending on the topic this may include the media (social or traditional), political literature and rhetoric including advocacy and campaign groups, key/expert informants, citizen interviews, the academic or subject specialists, and /or focus groups, among others. Individuals then undertake a forced partial ranking of all the statements; from those which they most agree, to those which they least agree. These rankings are known as Q Sorts (see above) and can be analysed for correlation across the individuals from which a number of abstract factors that represent a shared positions can be identified.

⁴⁴ 'The [Q] methodology enabled dominant voices to be recognized without these being exclusive, for Q enabled other voices and perspectives to emerge and to be recognized and valued at the same time. Overall, the collaborative approach to the use of Q methodology was considered to be both feasible and useful. Q can indeed be democratized.' Billard 1999

A small field study was undertaken to pilot a method of working with a community to capture individual expressed values and priorities for development and looking at different ways of aggregating them to produce a community profile. A simple, resource-light approach was developed with a view to it being able to be replicated by local elected representatives (ward rep), the local authority or local civil society to be able to explore what issues are being highlighted by which members of the community at a particular moment in time. It was therefore important that the exercise engages the locally elected representatives from the start and is seen as an inclusive exercise for the whole community. As with any democratic exercise, this aggregate expression of priorities is both temporally and spatially specific and whilst comparison with a duplicate exercise in other locations would reveal limited insights other than methodological, comparison with the same location over time would reveal interesting insights to how preferences change over time either along with election cycles or following a specific shock such as drought, flooding and disease outbreak. In this study I will however only have scope to do one round of fieldwork, with the potential for post-doctoral follow up study.

As the size of a locale of development analysis decreases, the democratic justification for directly engaging directly with the members of the community increases. Exercises in analysing human development across large populations (countries or states) have rarely, if ever, directly engaged the citizens covered by the analysis and invariably just use official government data to portray the status of the population. From a logistical perspective, this is understandable given the size of the population covered is usually the millions. However, at the local level, whether the size of population covered is much smaller, to not directly engage the citizens in the process undermines the democratic legitimacy of the exercise. This direct engagement is not just an exercise in extracting data about their current status: often restricted to income, education and health, but can be used to enable citizens to define what for them the priorities for development are across a broad range of areas of human activity.

Q sample: Statements on values and priorities

A Q sample is the list of statements that participants will be asked to rank. To get this list I wanted to draw as much as possible from the issues that the community were already discussing. I therefore requested the minutes of the Gram Sabha meetings for the last two year, four meetings, since I had attended in early 2014. With my research assistants, we analysed the minutes and drew out all the issues that had been covered and discussed.

In addition, I arrange to have more open conversations with various community leaders within and who support the ward residents, to ask them what issues they were aware of within the ward. These included:

- Ward representative (member)
- Religious leaders (priest, mosque& temple secretary)
- Primary health centre doctor,
- Anganwwadi (nursery) teacher

From analysis of the minutes and the conversations, come the following set of 28 statements:

1. Issue of school dropouts	15. Adequate shelter
2. Access to education for all	16. Adequate nutrition
3. Access to drinking water	17. Freedom to travel
4. Supportive friends, family and community network	18. Access to electricity for all homes
5. Freedom of choice over own life	19. To roam safely
6. Reduced risk of premature death	20. Pollution of the environment
7. Improved heath	21. Climate change
8. Livelihood diversity	22. Alcoholism, drug abuse
9. Job/ income security	23. Sports and arts clubs/ recreation
10. Able to hire labourers to assist with agriculture	24. Being able to take part in political decision-making
11. The freedom of women to work after marriage	25. Improved public transport
12. Ability to continue working in old age	26. Improved roads and bridges
13. Access to Anganwadi (pre-school)	27. Ability to run own enterprise
14. Special support for physically challenged & elderly	28. Toilets and sanitation

Gram Sabhas and deliberative democracy in Kerala

Kerala is well known for its institutionalised local deliberative democratic forums – the Gram Sabha: a community meeting held at the ward level twice a year for all adult resident (Isaac & Franke, 2002). Back in early 2014, alongside seeking the necessary local permissions to undertake field research from the district collector, the panchayat president and reporting these permissions to the police special branch, I attended as an observer one of the Gram Sabha meetings and introduced my research to the community. On the same weeklong trip, I visited every household in the ward to get a sense as to the likely level of willingness to participate, and over 90% of the households agreed which helped confirm the site for the fieldwork.

The concourse statements: In the interim between my initial visit in early 2014 and my pilot in early 2016, there had been four Gram Sabha meetings – inclusive of the one I attended in 2014. I requested from the panchayat office the minutes of these four meeting, and with my 10 research assistants, we convened a day long workshop to analyse these minutes to draw out all the issues covered in the discussions. From this workshop, 22 issues were identified, translated, discussed and listed (see Table 1).

Interviews with local community leaders and families

In addition, we arranged semi-structured conversations with three local community leaders and a three three-generation family within the ward: one each from each religious community (Christian, Muslim and Hindu), as well as the local doctor and the two local Anganwadi (nursery) teachers. Each interviewee was asked what issues they were aware of that affected the residents of ward 3. Each conversation, facilitated by my lead research assistant acting as an interpreter, lasted between half an hour and an hour. Lots of cardamon-laced tea was drunk and of the 85 issues mentioned across these conversations, many duplicated ones included in the Gram Sabha minutes, and an additional 28 new issues were identified. A further workshop was convened with the research assistants, and the wording for each issue in both Malayalam

and English was discussed and clarified. For each duplicate issue raised by multiple sources, the wording was tweaked to ensure it covered the essence of each, and a total of 50 initial statements were listed. Table 1 below list all 50 issues identified via the Gram Sabha minutes (22) and the interviews (28). As many of the issues were related concerns, where possible, we reworded the statements to capture the broader issue.

The final resulting statement-set is reproduced in Table 2 below. Initially 32 distinct statements were identified from the list collated in table 1, and these were discussed with the ward representative to confirm if any area of concern had been missed. None were identified at this stage and piloting of the set was arranged the following day with her household (4 x adults – two generations) and an additional household (2 x adults – two generations). The identified issues were then mapped against Nussbaum’s core capability list in preparation for the pilot. Of the final 28 statements, 17 (60.7%) were sourced in part from the Gram Sabha minutes whilst 11 came solely from interviews with community leaders.

Table 2: Finalised list of 28 issue with mapping against Nussbaum’s core capabilities list (appendix A in Malayalam)			
Summarised issue	#	Summarised issue	#
1. Control school dropouts	44	15. Adequate shelter	1, 30, 32
2.* Access to education for all (incl. primary, secondary, college/ higher, postgrad, adult, professional etc.)	4, 14, 16, 21, 29, 41, 48	16. Adequate nutrition	22, 37, 42
3. Access to drinking water	11	17. Freedom to travel (personal/ religious e.g. Haj, Taj Mahal, Delhi, Sabarimala, Velankanni)	33
4. Supportive friends, family & community network (incl. membership of community organisation)	31, 40, 46	18. Access to electricity for all households	18
5. Freedom of choice over own life	50	19. To roam safely (e.g. streetlights)	19
6. Reduced risk of premature death (child death, road accidents etc)	51	20. Pollution of the environment	7
7. Improved health	26, 27, 43	21. Climate change	9
8. Livelihood diversity (non-team, driving, tourism etc)	3, 12, 24	22. Issue of alcoholism, drug abuse	8, 45
9. Job/ income security	6, 13, 23, 25, 38	23. Sports and arts clubs/ recreation	20
10. Able to hire labourers to assist with agriculture	10, 13	24. Being able to take part in political decision-making (freedom of speech/ association)	49
11. The freedom of women to work after marriage	39, 40, 41	25. Improved public transport	17, 28
12. Ability to continue working in old age	15, 35	26. Improved roads and bridges	2
13. Access to Anganwadi (extended hours, transport)	36	27. Ability to run own enterprise (Kudumbashree/ SMME)	34, 48
14. Special support for physically challenged& elderly	40	28. Toilets and sanitation	5
* #2 was split by these five for the pilot& amalgamated in final set		2c Access to higher education (University/ college)	16
2a Access to postgraduate education	47	2d Access to Adult education	14, 21, 41
2b Support for special needs education	4, 29	2e Access to professional training	14

Source: authors fieldnotes

Table 1 Issues identified within Ward 3 from Gram Sabha minutes & community interviews

	Final list of issues	Gram Sabha minutes (22)	Primary Care Centre doctor (6)	Anganwadi teacher x 2 (15)	Mosque secretary (6)	Temple committee member (15)	Church priest - Catholic (6)	Muslim household (8)	Christian household (15)	Hindu household (14)	core capabilities mapping (1)
1. Housing – repairs and new houses	15	✓		✓	✓					✓	
2. Roads and bridges require repairs and maintenance	26	✓					✓		✓		
3. A need to increase men's access to self-help groups (SHG)	8	✓									
4. Special education needs for ST children– uniform, sports	2	✓									
5. Everyone to have plumbed toilets	28	✓		✓						✓	
6. Need for subsidies for chickens and animal husbandry	9	✓									
7. Pollution – air and water	20	✓							✓	✓	
8. Issue of alcoholism and drugs among communities	22	✓			✓		✓			✓	
9. Issues resulting from climate change	21	✓								✓	
10. Lack of labourers in agriculture sector	10	✓				✓		✓			
11. Problem of access to reliable water source	3	✓	✓	✓		✓		✓	✓	✓	
12. Tourism	8	✓									
13. Farm wages – NREGA	10	✓				✓					
14. Professional computer skills	2	✓									
15. Elderly access to self-help groups (SHG)	12	✓									
16. Lack/ cost of higher education opportunity	2	✓				✓			✓	✓	
17. Issues public transport	25	✓		✓					✓		
18. Universal electrification in all households	18	✓									
19. Street lights/ freedom to move around including after dark	19	✓							✓		
20. Social clubs, sports and arts	23	✓		✓							
21. Access to a library	2	✓									
22. Pre-primary nutrition	16	✓								✓	
23. Job/ income security	9					✓			✓	✓	
24. Not enough days through NREGA	8					✓			✓		
25. Less than 10 people in ward have govt jobs	9					✓					
26. Health issues among some of the community	7			✓		✓		✓	✓		
27. Previously no PHC doctor, hospital poor quality	7			✓		✓					
28. Issue of public transport to PHC and hospital	25				✓	✓					
29. Some marginalised communities excluded from school	2		✓			✓					
30. Some of the poorest homes have multiple occupancy	15					✓					
31. Religious festivals& inter-community cooperation important	4				✓	✓		✓			
32. Housing grants for labours - delays in payments	15					✓					
33. Ability to travel: visit Taj Mahal, Agra/ Delhi, Haj, Sabrimala	17			✓				✓	✓	✓	
34. Greater access to finance though women's SHG	27			✓							
35. Elderly people would like to work but get none	12			✓					✓	✓	
36. Extended Anganwadi hours (pre-school centre)/ access	13		✓	✓							
37. Issues of low nutrition levels – lack of diversity in food	16		✓	✓						✓	
38. Employment opportunities are low – job centre needed	9			✓	✓		✓				
39. Women's work opportunities limited esp. after marriage	11			✓		✓					
40. Community support/ pension for widows, elderly & disabled	14			✓	✓			✓		✓	
41. Freedom for women to study after marriage	2, 11							✓			
42. Improved morning and midday meals in school for BPL	16		✓								
43. High non-communicable disease: HBP, cancer& diabetes	7		✓								
44. Issue of school dropouts from 10 th standard esp. boys	1						✓				
45. Influence of social media on youth encourage drinking& drugs	22						✓				
46. A large number of broken families	4						✓				
47. Access to postgraduate education	2								✓		
48. Run own enterprise – limited funds through Kudumbashree	27								✓		
49. Ability to engage though political parties, meets & elections	24								✓	✓	
50. Freedom of choice over own life	5							✓	✓		
51. Reduced risk of premature death	6										✓

Source: Minutes of Ward 3 Gram Sabha meetings 2014&2015 and authors fieldnotes

Mapping against Nussbaum's core capabilities list

Given the theoretical concepts on human values and flourishing came from the literature on the capabilities approach developed by Amartya Sen and Martha Nussbaum, one way to check if there were any obvious areas not reflected to some extent in the list was to map them against Nussbaum's proposed core capabilities list (Nussbaum, 2011). The list is recreated in full in Box 1 on the next page, and summarised in Table 3 below along with the mapping of the issues listed in table 2.

Table 3 Nussbaum's proposed core capabilities list	
1. Life.	6*
2. Bodily Health.	7, 16
3. Bodily Integrity.	17, 19, 22, 25
4. Senses, Imagination, and Thought.	1, 2, 13
5. Emotions.	2, 22
6. Practical Reason.	1, 2
7. Affiliation.	
a. Being able to live with others	4, 14, 23, 24, 27
b. Self-respect & non-humiliation	2, 5, 11, 12, 22
8. Material.	
9. Other Species	20, 21
10. Play.	23
11. Control over one's Environment.	
a. Political.	24
b. Material.	3, 8, 9, 10, 11, 12,
*added after mapping	15, 18, 26, 27, 28

Source: Nussbaum 2000 and authors fieldnotes

As might expected, there was a clear concentration of identified issues related to control over one's material environment (10b). However, it was reassuring to see the other areas Nussbaum identifies as important core capabilities had some link to one or more of the statements. In addition, there had been no direct mention either from the Gram Sabha minutes or via the interviews of specific concerns around mortality, though concerns around improved health and nutrition were mentioned, not least by the local primary health care doctor. I therefore added 'Reduced risk of premature death (child death, road accidents etc)' as an additional final issue to the list to gauge to what extent this is a concern.

Following mapping against Nussbaum's list, 32 distinct statements were chosen for the pilot the following day. The pilot was undertaken with six adults (4 female and 2 male) in two households (one ST Hindu family and one Christian family). Each of the six individual pilots took approximately 30 minutes: with a five-minute individual, around 15 minutes for the participant to undertake the Q Sort ranking (explained below). This was followed by a 10-minute conversation to record the rationale for their ranking the two least and then the two most important issues.

1. **Climate Change**
 2. **Global Warming**
 3. **Greenhouse Effect**
 4. **Climate Change**
 5. **Global Warming**
 6. **Greenhouse Effect**
 7. **Climate Change**
 8. **Global Warming**
 9. **Greenhouse Effect**
 10. **Climate Change**
 11. **Global Warming**
 12. **Greenhouse Effect**
 13. **Climate Change**
 14. **Global Warming**
 15. **Greenhouse Effect**
 16. **Climate Change**
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The five previously disaggregated statements are listed at the bottom of table 2 and were: Access to higher education (University/ college); Access to postgraduate education; Access to Adult education; Support for special needs education; and, Access to professional training. The sixth education related statement on controlling school drop outs was kept as a separate specific statement as the issues of school drop outs goes beyond simply access.

Pilot sort – reformatted as the final statement set (28)

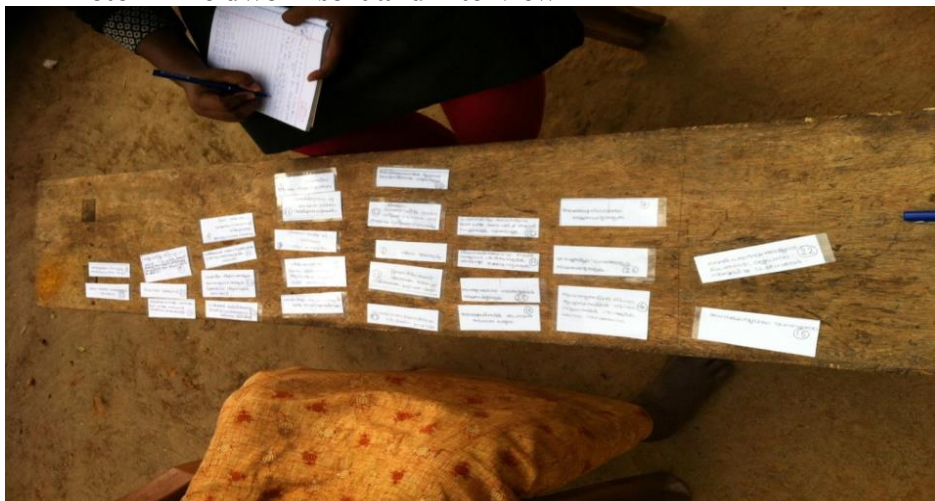
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28	8	12	11	13	26	25	19

Undertaking the QSorts – ‘deliberation within’

Following the pilot and the confirmation of the statement set, the full fieldwork took place of the next four weeks over February 2016. This started with Q Sort training for the ten research assistants (see appendix C), and agreeing a rota between us to ensure a manageable workload and avoid burnout over the coming weeks. To ensure all participants felt as comfortable as possible, and to minimise the time taken with each household, we ensured that where possible there was at least one female research assistant within each team of three at any one time. Given the sheer number of houses we needed to get around over the next few weeks, it was decided that I would lead one team and my lead research assistant, who had coordinated the community leader interviews and undertook the pilot Q Sorts with me, would lead the second team. In addition, due to concerns expressed during my initial visit two years earlier about foreigners trying to engage in Christian evangelical activities with the most marginalised communities in the district, it was decided that my lead research assistant along with the tribal promoter – a panchayat officer who supports the ST population – would approach the small paniyar community of six households in the ward, for interviews – so as not to cause unnecessary alarm.

Copies of the household list for Ward III received from the panchayat office were distributed to all research assistants, and a master list was updated daily of which households had been approached and any responses. As no map of the ward was available from the panchayat office, we draw each street out in rough within our notebooks as we moved around the ward for the fieldwork. By the end of the fieldwork, we were able to draw the not-to-scale map reproduced in Appendix B, a copy of which was gifted to the ward representative at the end of the fieldwork. For the first couple of days, the research assistants used their notebooks for recording the household demographics, each individual Q Sort and the following interview. By the end of the first week, we had been able to produce household coversheets and individual sheets with the Q Sort outline and space for interview notes were used (recreated in Appendix D & E). On completion, each household's coversheet and completed Q Sort sheets were filed ahead of data entry. Following the confirmation of the final 28 statement set, both a smaller and larger handwritten statement was laminated for each research assistant (smaller handwritten set is seen being used in the photograph below), and after the first week, one of the research assistants who had Malayalam writing programme at home, kindly produced the typed set seen in Appendix A.

Photo 2 – fieldwork sort and interview



For each household, there was a five-minute standard introduction from me (reproduced in Appendix F), with every sentence interpreted separately by one of the research assistants accompanying me, to ensure the adults that were currently home knew what the research was about, and that it was optional, and to ask if they were willing to participate, and if so, whether now was a good time or whether there was a time they would like us to return. If they were available straight away – which they almost always were, we would move straight to recording the household demographics (see appendix D), which would take a further few minutes, and then the first Q Sorts of the available adults who were home. We ensured that the actually Q Sort process was done individually without other household member seeing the choices, and for larger households with more than two available adults, one of the research assistants would offer to undertake one of the Q Sorts and interview concurrently.

For the Q Sort process, the research assistant would take the lead, explaining the process in Malayalam. The Q Sort required the participant to ‘rate’ the statement via a forced imperfect ranking from most agreed statement to least agreed via a quasi-normal distribution with neutral or indifferent in the middle as exemplified in picture above. Each participant was asked to first organise the statement cards into three piles: nine that were issues important to the participant, nine that were the least important issues to them, and ten that were neither most nor least important to them.

Interview on ranking rationale

Each Q Sort would take around 15 minutes followed by a 5 to 10-minute interview to discuss their choice of the two least and then the two most important issues. The vast majority of interviews were held solely in Malayalam, though around a couple of dozen were keen to do them in English. Each interview was led by the research assistant who would interpret the responses to me as they were being given for me to write down and who would ask any follow-up or clarification questions should there be any, which there usually were. Each participant was asked first to say a little about their rationale for placing the two least important issues. After this, the interview turned to the two most important issues, and included additional clarification after the rationale for their selection, on who the issue affected, how long had it been a priority issue and whether they had any suggestions on how to improve the issue.

At the end of each interview, the participant was asked if there were any important issues that they felt had not been captured in the 28 statements. Only a few participants mentioned there were and these were recorded including the issue of stray dogs in the ward; and, better access to hospital. If there were any other adults in the household who were not currently available, we would ask about a convenient time to try and catch them either later that day over the coming days, and where possible the same research assistants and I would try to return to catch them. We would record who in the household was either not able, not willing or not available due to being away (some were working elsewhere in Kerala, outside the state, or in the Gulf) – we would thank the household and let them know that we would be feeding back preliminary research findings back via the next Gram Sabha meeting which conveniently was scheduled for week three of fieldwork, and that we'd feedback final findings via the ward representative once analysis had been completed.

Chapter three – Demographics and R analysis

This chapter briefly overviews the demographics of the ward and research participants, before moving on to analyse the issues that research participant's chose as most and least important.

Overall, the issues which were of highest concern to more people included access to drinking water; issues of alcoholism and drug abuse, special support for physically challenged and elderly; and access to education.

The issues which were of least concern within the community included Sports and Art clubs/recreation; Access to Anganwadi; Freedom to Travel. One key finding was that every issue was most important to at least seven individuals and least important to at least six. We then analysed these by gender, community, age and class which shows where there is agreement across the characteristics and where there is difference.

This profiling of priorities whilst interest in its own right, is limited in terms of understanding where participant's preference were shared, which we show in the following two chapters.

Demographics of Ward 3

Each of the 263 Ward 3 households was approached up to three occasion to try and catch the adult residents and request their participation. At least one adult completed a sort and provided basic household demographic data in 244 (92.8%) of the households, whilst it was not possible to get data or do any interviews in 19 (7.2%) households. Of the 1,162-known individual, 557 (68.3%) of the 815 that were over 18, completed a Qsort& interview. There was a quite a significant gender bias⁴⁵ among those who completed Qsorts, with 58.3% (325) women and 41.7% (232) men.

⁴⁵ In the 244 (92.8%) households for which demographic data was collected, there were 1,162 individuals; 569 female and 562 male. This gives an average of 5.7 people per household and a sex ratio of 1,012 females to 1,000 males. Whilst this is lower than the district census average of 1,035 (census 2011), the method is somewhat different in that in my demographics I have included workers who are abroad, the majority of whom were male, but continue to contribute financially to the

This was mainly accounted for by there being a much higher number of men being unavailable: 122 compared to 40 women, with the majority of these either due to working away from home elsewhere in Kerala/ India or in the Gulf, or returning home too late on an evening⁴⁶ to participate. Female headed households made up almost a quarter (24.9%) of all houses, and this is without take into account household heads who may be away long term – who were included in the count making the ward census methodology somewhat different from an official census (see footnote 2). In addition to those unavailable due to working away/ late, there were 32 (3.9%) who were not able: usually for issues of dementia or special educational needs and 58 (7.1%) who were unwilling.

Table 4: Demographics of Ward 3 and of who did & didn't complete a Qsort & interview

	Total		Female		Male		Gender unknown	
Total individuals	1,162	100.0%	569	49.0%	562	48.4%	31	2.7%
Total households	263							
Total households with at least one sort	244	92.8%	60	24.9%	184	75.4%	0	0.0%
Total adults	815	70.1%	408	35.1%	404	34.8%	3	0.3%
14-17 yo	78	6.7%	43	3.7%	35	3.0%	0	0.0%
U 14	221	19.0%	107	9.2%	110	9.5%	4	0.3%
Total age unknown	48	4.1%	11	0.9%	13	1.1%	24	2.1%
Total # completed sorts	557	47.9%	325	28.0%	232	20.0%	0	0.0%
Total who didn't complete	605	52.1%	244	21.0%	330	28.4%	31	2.7%
Total U18	299	25.7%	150	12.9%	145	12.5%	4	0.3%
Total age unknown	47	4.0%	11	0.9%	12	1.0%	24	2.1%
Of adults - total & by gender								
Total # completed sorts	557	68.3%	325	79.7%	232	57.4%	0	0.0%
Total adults who didn't complete	306	37.5%	94	11.5%	185	22.7%	27	3.3%
Total not available	170	20.9%	40	4.9%	122	15.0%	8	1.0%
Total not able	32	3.9%	17	2.1%	14	1.7%	1	0.1%
Total not willing	58	7.1%	25	3.1%	30	3.7%	3	0.4%
Total unknown	46	5.6%	12	1.5%	19	2.3%	15	1.8%

Source: authors fieldnotes

household. I did not collect detailed enough data on the reasons on adults being unavailable to be able to calculate using the census methodology, and the result would be close to the ward average.

⁴⁶ Our usual fieldwork day ran from 8am to just after dusk at 7pm. Whilst it was possible to catch those who worked late at weekends, given the finite time available for fieldwork, it wasn't possible to catch everyone.

Below we see further demographic breakdown of the population of Ward 3 as a whole and of the households which provided demographic information and had at least one QSort. This was collected as part of the demographic survey (see Appendix D) to enable further analysis. In addition, it was record whether the residents rented or owned their property. However, only two rental properties were identified in Ward 3 during the fieldwork. The first was a local family renting a flat long-term from a local landlord, and they the adults in the household both completed a QSort and interview. However, the other rented property was occupied for a short-term rent by five Bengali migrant workers, and despite efforts to include them in the research, between us – we did not have the necessary language skills available. See Appendix E for further demographic details.

The additional collected data include:

• Gender of household head	• Age
• Community	• Highest Education qualification/ year
• Class – estimated from occupation	• Ayle Sabha (neighbourhood)
• Illness: Whether self-reported illness, Whether self-reported illness in the household	
• Self-reporting member of an organisation (self-help group, political party etc)	

In these 244 households there were 1,162 individuals, 569 female and 562 male. This gives an average of 5.7 people per household and a sex ratio of 1,012 females to 1,000 males. Whilst this is lower than the district census average of 1,035 the method is different in that I have included workers who are abroad, the majority of whom were male, but continue to contribute financially to the household. There were known 299 under 18 with the majority of the 48 with age unknown also being children. Of these known aged children 221 were under 14 years, whilst 78 (43 female and 35 male) were youth between 14-17 years. Of the 815 known total adults, 557 (68.3%) completed a Q sorts. Of the 306/258 (31.7%) adults who didn't complete a sort, 170 were not available (this included those who were not available during survey hours due to working hours, and those who were away either elsewhere in Kerala, elsewhere in India or abroad), 32 who were not able due to old age/ physical and/or mental disability, 58 who were not willing, and 46 unknown.

List of single identity and double identify groups

	Gender	Age	Education	Class	Community	Alye Sabha	Total
Gender	2	8	8	6	8	8	40
Age		4	16	12	16	16	64
Education			4	12	16	16	48
Class				3	12	12	27
Community					4	16	20
Alye Sabha						4	4
Total							203

List of specific issue groups – (group member or not group member)

	groups	Member of an organisation	
Self-reported health	2		2
Self-reported health issue in household	2	Total	6

Elected ward member

In representative democracy – the views of the elected ward member especially important in driving local public policy priorities. They will also be informed by

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			8	21			
		18	7	23	10		
	16	6	24	27	22	20	
28	3	15	14	2	5	1	17
4	8	12	11	13	26	25	19

None-Q analysis

The following section compares analysis of the data by two methods. The first looks at the frequency of an issue being ranked within the top two ‘most important’, and then the frequency of an issue being ranked within the bottom two ‘least important’, this is then compared to an analysis of the average ranking of each issue and looks to highlight the difference in the results using each method.

One of the first things of note from the wards complete sorts is that every one of the 28 issues was reported as one of their two most important issues by at least five people (‘access to Anganwadi’ and ‘freedom to travel’), which indicates the each of the issues is seem as especially important by some people. Looking at the average rank of the issues, no issue averaged less than -1 or more than +1

We can also discuss here missing issues. On completion of their sort and recording their reasoning for the most and least important issues, each participant was asked whether they could think of anything that was missing from the list. Whilst the overwhelming majority said they couldn't think of anything obvious at that time, a couple of people specifically mentioned access to the hospital – which is a way in the district town capital of Kalpetta, and one person mentioned stray dogs as a prevalent issue in the area. On examining the reasoning participants gave for having ranked certain issue more or less important, alongside environmental pollution, one person.

Demographics of the ward and data set

At the time of the fieldwork – there were 263 households in ward three, of which 244 (92.8%) had at least one adult complete a sort and provide basic demographic data, and 19 households who did not available or interested during the fieldwork period.

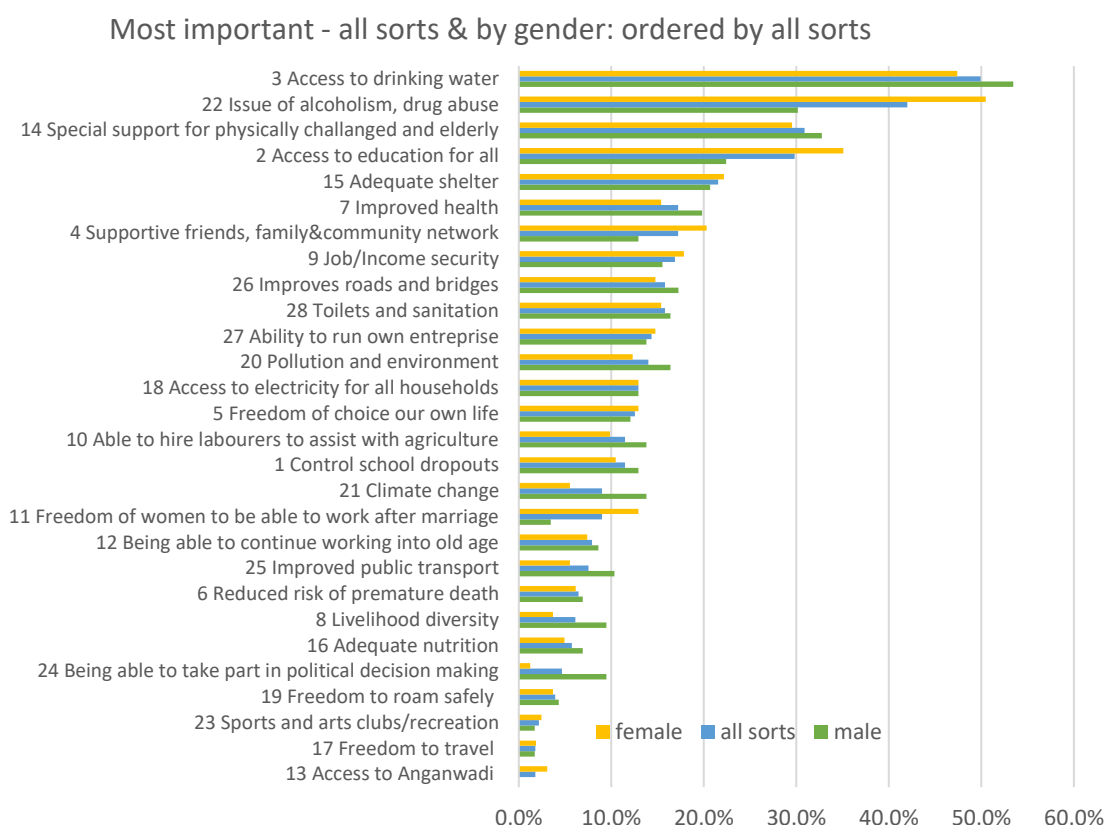
In these 244 households there were 1,162 individuals, 569 females and 562 males. This gives an average of 5.7 people per household and a sex ratio of 1,012 females to 1,000 males. Whilst this is lower than the district census average of 1,035 the method is different in that I have included workers who are abroad, the majority of whom were male, but continue to contribute financially to the household.

There were known 299 under 18 with the majority of the 48 with age unknown also being children. Of these known aged children 221 were under 14 years, whilst 78 (43 female and 35 male) were youth between 14-17 years. Of the 815 known total adults, 557 (68.3%) completed a Q sorts. Of the 306/258 (31.7%) adults who didn't complete a sort, 170 were not available (this included those who were not available during survey hours due to working hours, and those who were away either elsewhere in Kerala, elsewhere in India or abroad), 32 who were not able due to old age/ physical and/or mental disability, 58 who were not willing, and 46 unknown.

Analysis by frequency of issue being rank within top two most important

Looking first at the proportion of the community that ranked each issue as one of their two most important, figure two below ranks them by all sorts, whilst showing the difference by gender. We see that (3) 'Access to drinking water' was put as one of their two most important issue by half (49.9%) of the community, with slightly more men (53.4%) than women (47.4%). Whilst this may seem counterintuitive when we note that women bear the higher burden of fetching or drawing water when the piped water is not flowing or installed, looking at the next highest 'most important' issue to help explain this and highlight the nature of q sorts. The much higher ranking by women of statement (22) 'Issue of alcoholism& drug abuse' which was ranked by over half of women (50.5%) as one of their top two issues and less than a third (30.2%) of men, 42.0% for the whole community, explains the slightly lower proportion of women ranking water as one of their two most important.

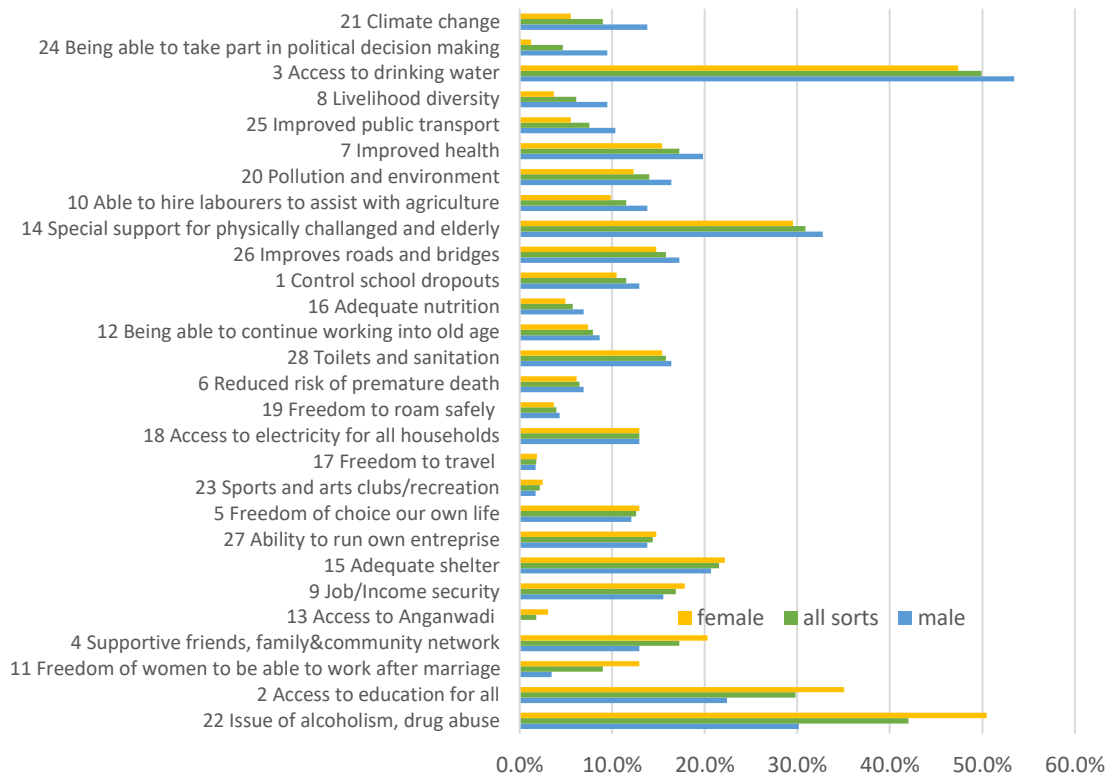
Similarly, looking at the next two most common 'most important' issues we similarly see that whilst issue (14) 'special support for physically challenged and elderly' has been ranked most important by slightly more men (32.8%) than women (29.5%), which again seem counter intuitive given the additional domestic labour placed on women to support physically challenged and elderly, we see that issue (2) Access to education for all has been ranked most important by significantly more women (35.1%) compared with men (22.4%). We likewise see that whilst issue of (15) adequate shelter has been put as one of their two most important issues (21.5% overall) by a similar proportion of men (20.7%) and women (22.2%), we see that for (7) Improved health (17.2% overall), more men (19.8) put it as one of their two most important issue than women (15.4%), and for (4) supportive friends, family and community networks (17.2% overall) significantly more women (20.3%) than men (12.9%) put it as one of their two most important issues.



If we look at the other end of the graph, we see that whilst 17, 23 and 19 have quite similar percentages of both men and women, 13 ‘access to Anganwadi’ and 24 ‘being able to take part in political decision making’ are significantly different between the genders. Figure two – arranged the same data by the gap between the genders can help us explore a little further the issues that more men and women who put within their top two most important issues.

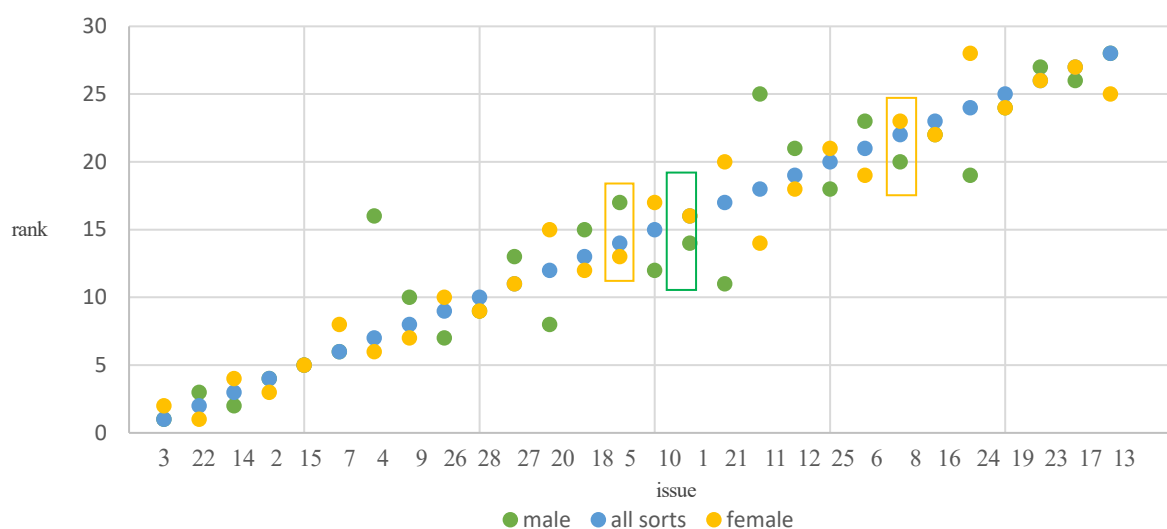
At the top of the figure, we see those issues where more men had ranked them as one of their two most important compared to women. We see both ‘climate change’ (21) and ‘being able to take part in political decision making’ has the largest gender gap of 8.3% skewed to men. Access to drinking water (3) was discussed above, and then we have ‘livelihood diversity’ (8) and ‘improved public transport’ If we look at towards the bottom of the chart – we’ll see three of those issues highlighted above (22 – gap of 20.3%, 2 with a gap of 12.7% and 4 with a gap of 7.4%), along with (11) ‘Freedom of women to work after marriage’ with a gap of 9.5%. These are following by (13) ‘access to Anganwadi’ where no a single man had put it as one of their two most important issues, giving a gender gap of 3.1%

Figure 2 most Important - all sorts and by gender: ordered by gender gap



By plotting the deviation in ranking of the most frequently ‘most important’ issues by gender against the ‘all sorts’ ranking, we can highlight which issues the gender disaggregated data ranks as more important by sex. Noting that a lower rank means more important, we can see that for issues 4, 5, 11 and 8 women ranked the issue at least four places higher than men, whilst conversely men ranked issues 20, 10, 21 and 24 at least four places higher than women. In fact, there is only one issue: 15 ‘adequate shelter’ which was ranked the same for men and women – and looking at figure one, we see this is only just the case with 20.7% of men ranking (15) adequate shelter as one of their two most important and 19.8% of men ranking (7) improved health in their top two issues.

Figure 3: Deviation in rank by gender for 'most important'



Looking at the extreme ends of the figure, we see the divergence in which issues are most or least likely to be seen as most important by gender: whilst men more men rank 3 ‘access to safe drinking water’ as most important more often than any other issue, women rank 22 ‘issue of alcoholism and drug abuse’ most important more often than any other issue. Likewise, at the other end of the of the figure, whilst men are least likely to put 13 ‘access to Anganwadi’ as most important, women are least likely to put 24 ‘being able to take part in decision making’.

Analysis by average rank

We now compare the above frequency of ‘most important’ with the average rank of each issue by all sorts and by gender. Here we see a reordering of an issue compared to its frequency as one of the two most important. By this analysis issue 14 ‘special support for physical and elderly’ is seen as the most important for the whole community – having the second highest average rank by both women and men. However, as we can see from the top three, access to drinking water is still on average the most issue for men and access to education the most important issue for women.

The issue of alcoholism and drug abuse (22), whilst by frequency of ‘most important’ was the highest for women, when the average ranking is used, it drops to third for women (behind 14 and 2) pushing down into 4th for all sorts. Similarly, for the issues with the lowest average rank whilst 13 ‘access to Anganwadi’ has the lowest average rank for men and 24 ‘being able to take part in political decision making’ the lowest for women, across all sorts 23 ‘sports and recreation’ has the lowest average rank.

Figure 4: average rank of issue by all sorts & gender - ranked by all

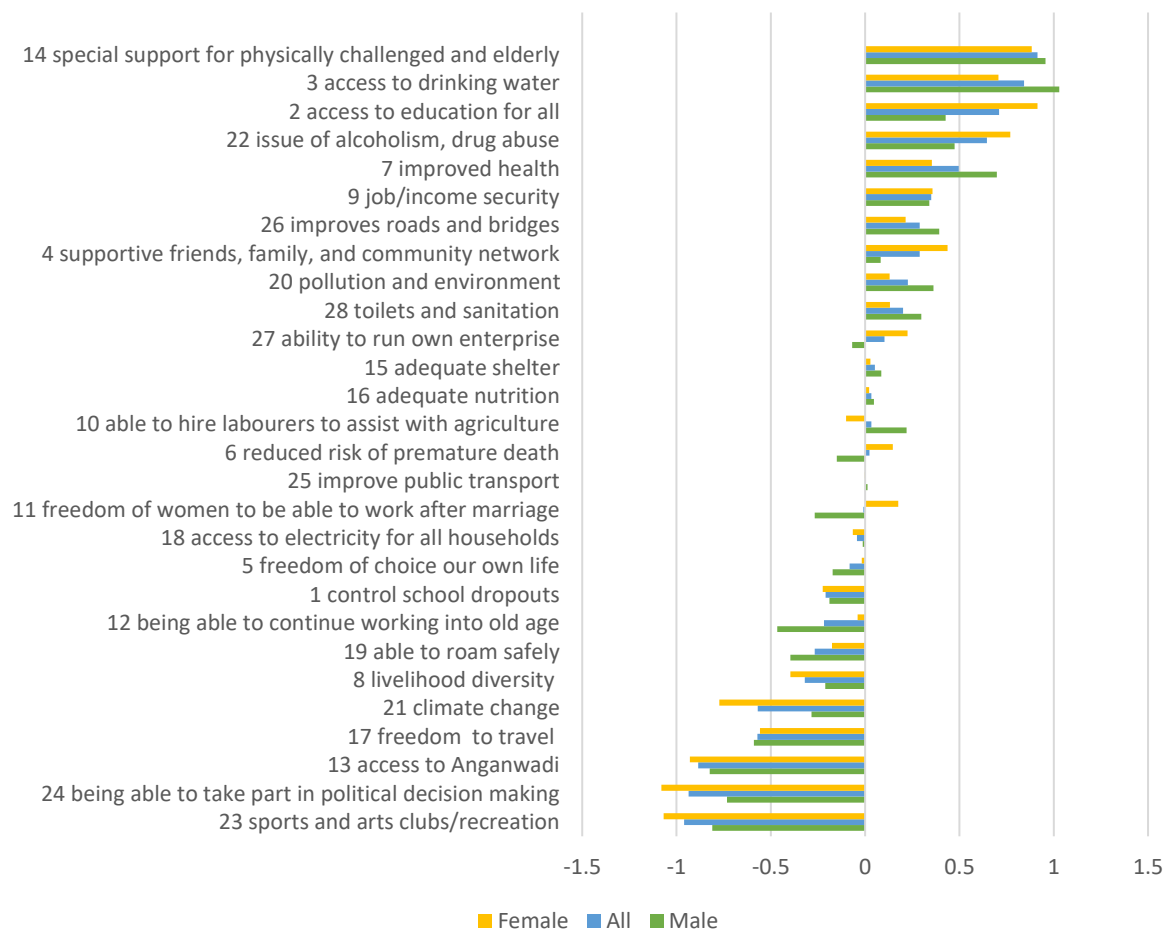
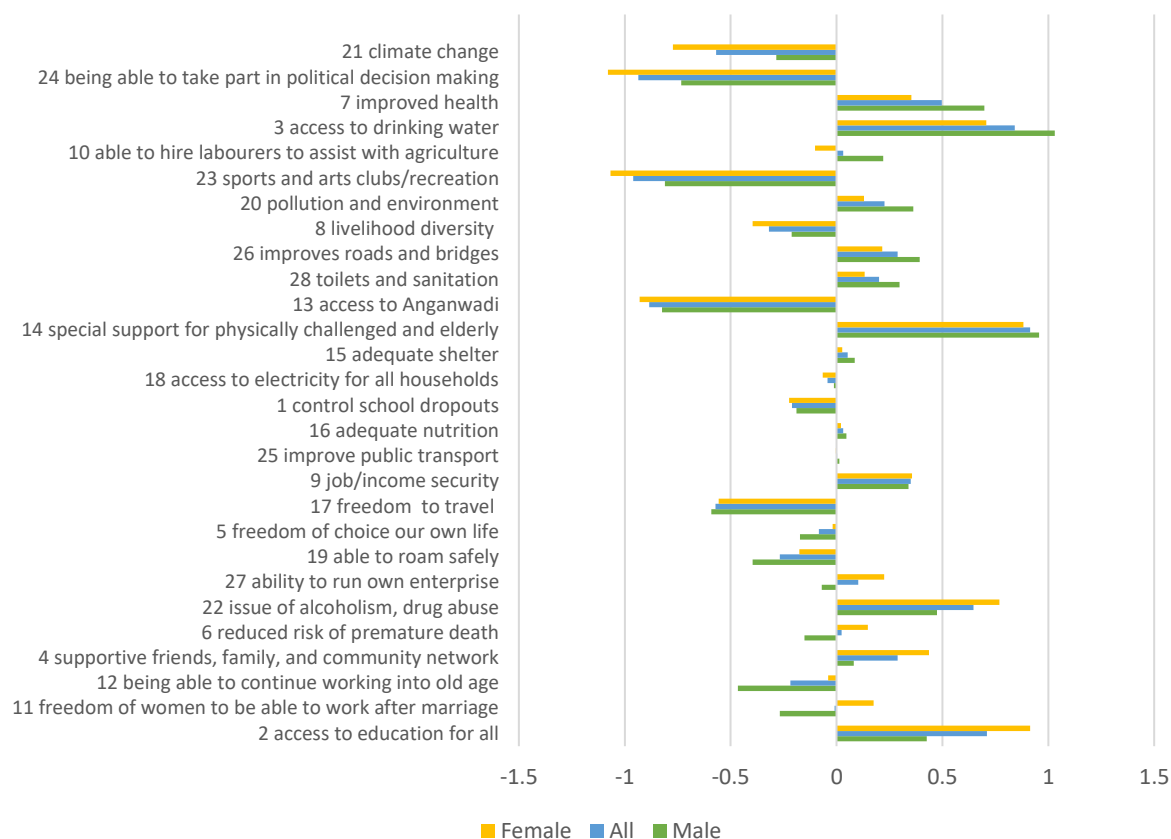


Figure 5 below shows the same data but ranked by gender gap – with those issues whose average rank was higher for men at the top, running down through to those issues whose average rank was higher for women at the bottom. As we would expect, the same issues as highlighted in figure one are towards the top and bottom of the figure, however, there is some re-ordering. Whilst (21) climate change and (24) being able to take part in political decision making as still first and second greatest gap towards men, issue (7) improved health has jumped up from 6th when ranked by frequency of ‘most important’ to 3rd when ranked by average position.

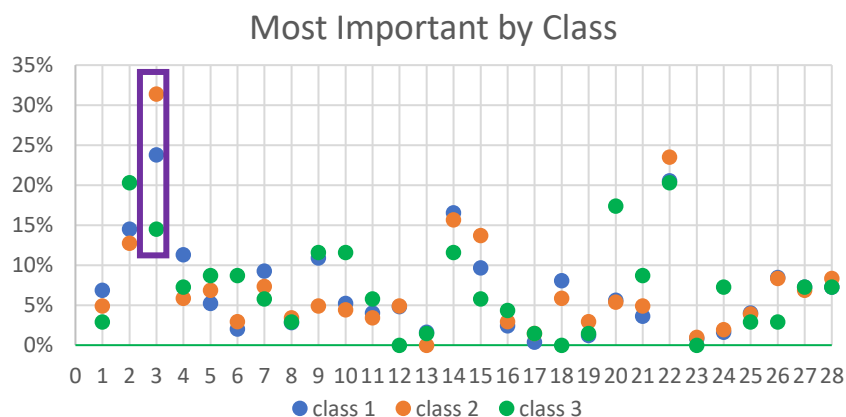
Figure 5: average rank of issue by all & gender - ranked by gender gap



Analysis by other demographic characteristics

Below we provide some examples of similar analysis undertaken against different characteristics, such as class, community, age, education, and neighbourhood (ayle sabha).

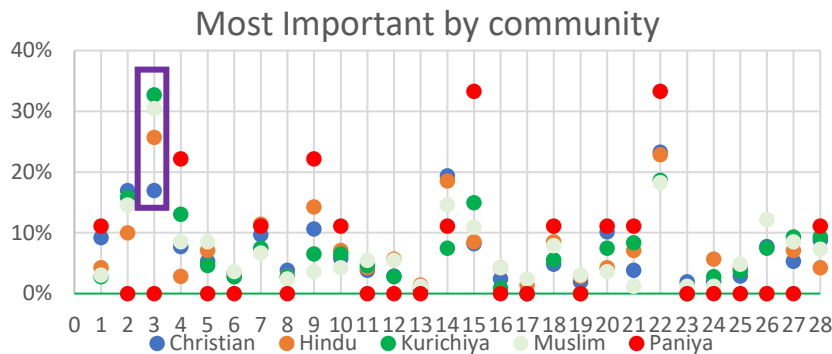
Class – most important



In the chart above, we see there is an indication that possibly surprisingly, some issues such as (8) livelihood diversity, (27) ability to run own enterprise, and (28) access to toilets and sanitation don't appear to have any differentiation between levels of income. Other issues such as (1) control of school dropouts, (5) freedom of choice over own life, do appear to be impacted by income level. Two issues are especially marked by the highest earners (class 3) having no concerns, (12) being able to work into old age and (18) access to electricity, whereas, somewhat less surprisingly, those on lower income have higher levels of concerns for both of these.

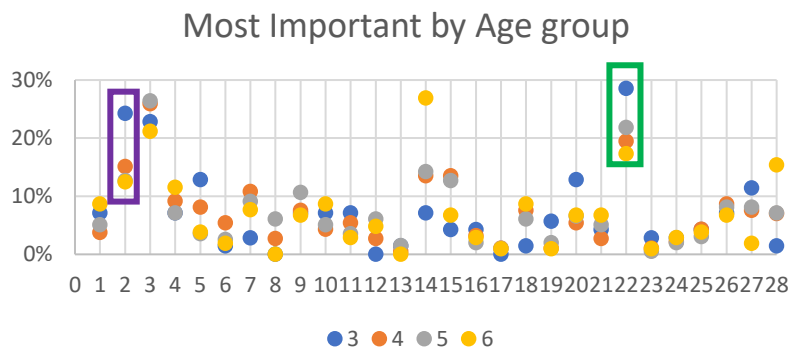
The issue of (3) access to drinking water – highlighted by the purple rectangle, is particularly marked by income level, though not linearly, with a third of all the middle earners (class 2) reporting this as one of their two top priorities, compared to a quarter of the lowest earners, and maybe as expected, significantly less at under 15% for the highest earners. This may need some further exploration including by neighbourhood (aylesabha), as the jalandini piped water programme has been rolled out less in the more elevated areas of the ward, which may correspond more with where middle-income earners live.

Community – most important



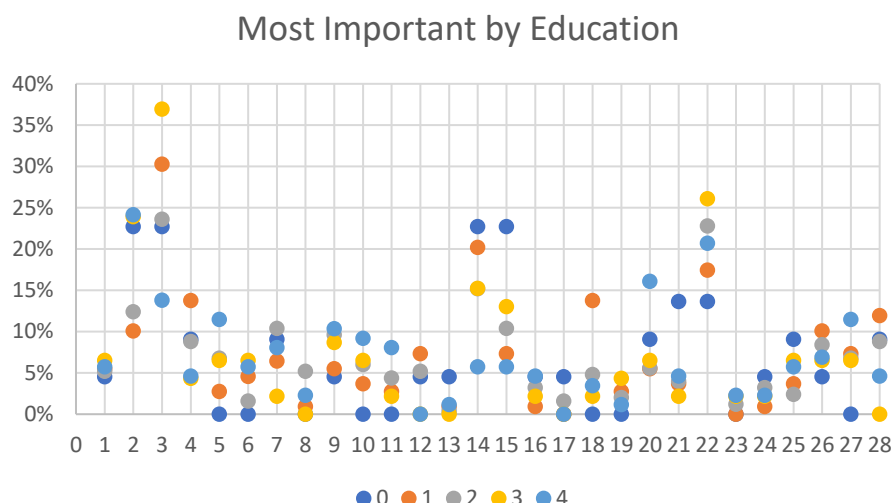
Whilst number for the Paniyar community are low, that a third of respondents noted adequate shelter as a top two priority is telling. It's also informative to note that value-based issues such as (11) freedom of women to work after marriage shows little difference across the communities, and is much more marked by gender. Again, as a third of all Kurichiya responded to (3) access to drinking water – highlighted in purple, reported this as a top two priority may again indicate alignment we geographical issues with the roll out of the jalandini programme.

Age– most important



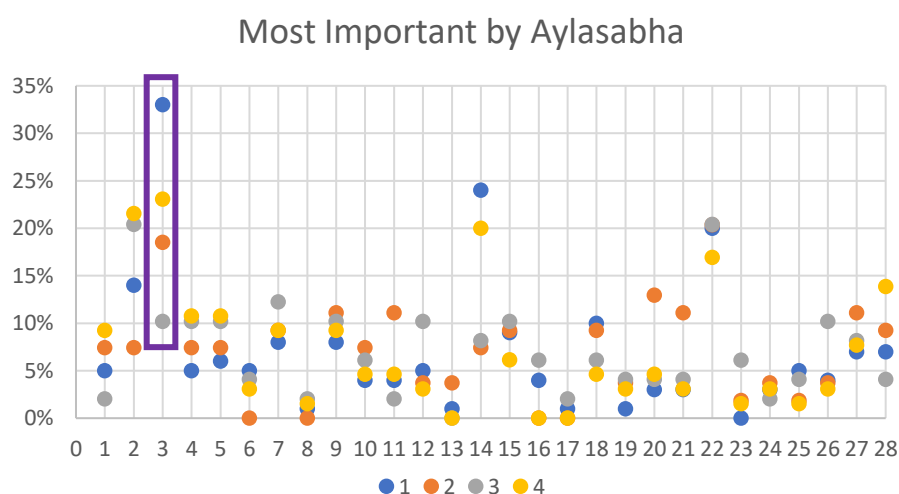
Here we see how age appear to possibly be an influence for concerns around (2) access to education for all (highlighted in purple), (20) pollution of the environment (highlighted in green)– with younger respondents being more likely to express these are a priority, and conversely issues of (28) access to toilets and sanitation, and (14) special support for physically challenged, and (7) improved health – older residents are more likely to place as a top two priority.

Education – most important



Here we look at how education might influence preference – especially in issues of alcoholism, access to drinking water, adequate shelter, special support for physically challenged, freedom of choice over own life.

Ayla sabha (neighbourhood) – most important



As mentioned previously, it appears the issue of (3) access to drinking water (highlighted in purple) has a clear geographical bias, with those in Aylesabha 1 being substantially more likely to have this as a top two priority – around a third,, than those in aylasabha 3 with only 10% placing as a top 10 issue. There appears to also be a geographical influence for both (14) special support for physically challenged and (28) toilets and sanitation.

Chapter 4 Analysis of the QSorts – the 59%

Introduction

This chapter analyses the 565 QSort via a factor analysis, and identifies three retained factors which account for 59% (331) of all research participants. These factors are identified as: Health and Environment; Lifelong stability through state support; and, Community, Home and utility secure. This then provides a detailed description of each of the three factors using Stenner and Watts interpretation crib to identify which issues were particular placed higher or lower priority for one factor when compared to the other two. This enables us to describe in details the shared priorities of three groups of people within the community which make up 59% of participants.

In this chapter, using Akhtar-Danesh's (2018) stata `qfactor` command, we put the 557 participants' QSorts through a QMethod correlation factor analysis to look to identify clusters of individuals within the population with shared similar placement of the 28 issues they were asked to rank. These 'shared viewpoints' are identified by a minimum correlation to a factor: an artificially created QSort ranking of the 28 issues using the varimax rotation which maximises the number of 'loaded' individual participants' QSorts on the retained factors. We explore the retention of two to ten factors, and settle on retaining three factors as being able to represent the highest proportion of participants.

We then use Simon Watts' (2012) interpretation crib sheet to help us systematically identify the defining issues that especially stand out for each of the three retained factor. Finally, we take the corresponding statements from the post-sort interviews of the highest correlating loaded individuals' on the factor for each identified defining issue. This enables us to build a more nuanced and detailed picture of the reasoning participants used when ranking a particular statement as one of their two most or two least important issue. This enables us to explore the collective rationale for the shared positions of the factor and identify their particular features, enabling us to give character to the factor.

Undertaking the QMethod analysis

Using William Stephenson's original 1935 correlation formulations (Brown S. , 1980), (Watt & Stenner, 2012), it is possible to identify clusters of QSorts as having a 'shared viewpoint' of their rankings of the 28 issues. This is done by analysing the degree of correlation between each QSorts' rankings of the issues, as outlined in detail in our methodology chapter. This analysis enables the identification of a number of factors: artificially created QSorts which can be seen as representative of the groups' choices of the QSorts that load onto it.

The 557 QSorts were analysed using the STATA QMethodology programme developed by Akhtar-Danesh (2018), which employs the varimax rotation which maximises the number of QSorts loading on each factor. Table 5 below shows the number of retained factors with their corresponding loading QSorts correlated to .38 or more when retaining between 2 and 10 factors. We see that whilst retaining two factors gives a total loading of 298 QSorts, retaining three factors gives the greatest number, at 331 (59.4%) from a total of 557. This breaks down as: Factor #1 has 130 loaded QSorts, Factor #3 has 122 loaded QSorts, and Factor #3 has 79 loaded QSorts. If we retain more than three factors, we see the number of loading QSorts decreases, first to 313 for four factors down to only 170 QSorts (30.5%) across 10 retained factors.

The qfactor command for stata

Akhtar-Danesh (2018) has published the syntax for the command for the stata statistical programme to be able to undertake QMethod factor analysis. This is as follows:

```
qfactor varlist [ if ] [ in ], nfactor(#) [ extraction(string) rotation(string)
  transpose(string) statement(string) score(string) esize(string)
  bipolar(string) ]
```

As we'll be using the built in varimax option for the rotation, we don't need to concern ourselves here with other alternatives.

Retaining factors

We ran the programme asking it to retain all options of factors from two to ten. Below we see the factor loading by the total number of retained factors. If we retained just two factors, they would have the most QSorts loading each – at 147 and 151, totalling 29. However, not as if we allow for three retained factors, we see that the total number of loaded QSorts is higher at 331. If we then move to four retained factors, we see the total number of loading QSorts drops to 313, and then as the number of retained factors continues to increase down the table, up to 10, the total number of loaded QSorts continues to decline.

Table 4.1a Retaining 2-10 maximum loading factors

# Factors	1	2	3	4	5	6	7	8	9	10
Σ loaded										
298	147	151								
331	130	122	79							
313	109	76	72	56						
289	87	70	58	49	25					
258	73	57	40	39	33	16				
240	71	45	33	30	20	21	20			
217	59	47	28	24	21	19	9	10		
189	56	32	23	20	12	16	13	9	8	
170	55	20	21	17	10	9	14	8	10	6

It looks therefore that as we're interested in representing the most QSorts as possible, we should use the three retained factors. To test this, in table 4.2 on the next page we go on to explore how stable the retained factors are, we see in table 6 below the proportion of each factor retained down the different factor loadings. We see in the column outlined in red that the factors produced when three factors are retained are reasonably stable throughout the increasing the number of retained factors – with over 80% of the same QSorts loading when retaining four and five factors, around 70% of the same QSorts when retaining 6 to 8 factors, dropping to over 60% when there are 9 and 10 retained factors.

Table 4.2 Stability of factors

Factors retained	Σ loaded	match previous	% match previous	% cumulative 3 retained	match all factors with by 3 all factors	match all factors with by 3 all factors	F1 # loaded	match previous	% match previous	% cumulative 3 retained	match 3factor #	match 3factor %	F2 # loaded	match previous	% match previous	match 3factor #	match 3factor #	% cumulative 3 retained	F3 # loaded	match previous	% match previous	% cumulative 3 retained	match 3factor #	match 3factor %	F4 # loaded	match previous	match 3factor	% match previous	% cumulative 3 retained	F5 # loaded	match previous	% match previous	% cumulative 3 retained
2	298				251	84.2	147				41	27.9	151																				
3	331	251	84.2	100.0	331	100.0	130	41	31.5	100	130	100	122	16	10.6	69	56.6	100	79		100	100	16	20.3		0							
4	313	257	77.6	77.6	257	82.1	109	101	92.7		101	92.7	76	69	56.6	76	100	56.6	72	16	20.3	20.3	72	100	56	0		100	100				
5	289	244	78.0	60.5	233	80.6	87	80	92.0		81	93.1	70	64	84.2	61	87.1	47.6	58	51	70.8	14.3	9	15.5	49	40		71.4	71.4	25	0	100	100
6	258	190	65.7	39.8	180	69.8	73	68	93.2		70	95.9	57	49	70.0	51	89.5	33.3	40	39	67.2	9.6	5	12.5	39	12		24.5	17.5	33	5	20.0	20.0
7	240	181	70.2	27.9	167	69.6	71	59	83.1		71	100	45	38	66.7	40	88.9	22.2	33	0	0.0	0.0	17	51.5	30	0		0.0	0.0	20	0	0.0	0.0
8	217	155	64.6	18.0	153	70.5	59	58	98.3		58	98.3	47	32	71.1	44	93.6	15.8	28	0	0.0	0.0	3	10.7	24	0		0.0	0.0	21	0	0.0	0.0
9	189	148	68.2	12.3	121	64.0	56	48	85.7		56	100	32	22	46.8	20	62.5	7.4	23	23	82.1	0.0	3	13.0	20	16		66.7	0.0	12	0	0.0	0.0
10	170	132	69.8	8.6	107	62.9	55	52	94.5		55	100	20	10	31.3	15	75.0	2.3	21	20	87.0	0.0	2	9.5	17	2		10.0	0.0	10	8	66.7	0.0

The three retained factors

On the next page, we have shown the three retained factors produced by the varimax rotation QMethodology analysis, maximising the number of loaded QSorts. In this next section we will now explore the characteristics of each of the three factors. Factor one which we have named 'Health& environment' has 130 loaded QSorts, representing almost a quarter (23.3%) of all QSorts, with 122 loading on Factor 2 which we've named 'Lifelong stability from state support' representing over a fifth (21.9%). Factor 3 named 'Community focused, home & utilities secure' has 79 QSorts loading, representing a seventh (14.2%) of all QSorts. Together these three retained factors can represent over half (59.4%) of all the 557 QSort.

Factors.

Below are the three retained factors

Factor 1: Health and environment 130 loaded

← most important			neutral		least important →		
+3	+2	+1	0	0	-1	-2	-3
			1 control school dropouts	9 job/income security			
		10 able to hire labourers to assist with agriculture	6 reduced risk of premature death	15 adequate shelter	27 ability to run own enterprise		
	14 special support for physically challenged& elderly	2 access to education for all	16 adequate nutrition	4 supportive friends, family, & community network	8 livelihood diversity	13 access to Anganwadi	
22 issue of alcoholism, drug abuse	20 pollution and environment	28 toilets and sanitation	18 access to electricity for all households	19 able to roam safely	23 sports and arts clubs/recreation	5 freedom of choice our own life	17 freedom to travel
3 access to drinking water	7 improved health	26 improve roads and bridges	25 improve public transport	21 climate change	11 freedom of women to be able to work after marriage	12 being able to continue working into old age	24 being able to take part in political decision making

Factor 2: Lifelong stability through state support 122 loaded

← most important			neutral		least important →		
+3	+2	+1	0	0	-1	-2	-3
			18 access to electricity for all households	25 improve public transport			
		4 supportive friends, family& community network	28 toilets and sanitation	19 able to roam safely	20 pollution and environment		
	14 special support for physically challenged& elderly	7 improved health	11 freedom of women to be able to work after marriage	16 adequate nutrition	10 able to hire labourers to assist with agriculture	1 control school dropouts	
3 access to drinking water	15 adequate shelter	27 ability to run own enterprise	12 being able to continue working into old age	6 reduced risk of premature death	17 freedom to travel	13 access to Anganwadi	24 being able to take part in political decision making
2 access to education for all	9 job/income security	5 freedom of choice our own life	26 improve roads and bridges	22 issue of alcoholism, drug abuse	8 livelihood diversity	21 climate change	23 sports and arts clubs/recreation

Factor 3: Community, home & utilities secure 79 loaded

← most important			neutral		least important →		
+3	+2	+1	0	0	-1	-2	-3
			6 reduced risk of premature death	21 climate change			
		11 freedom of women to be able to work after marriage	12 being able to continue working into old age	5 freedom of choice our own life	16 adequate nutrition		
	2 access to education for all	20 pollution and environment	10 able to hire labourers to assist with agriculture	24 being able to take part in political decision making	23 sports & arts clubs/recreation	13 access to Anganwadi	
22 issue of alcoholism, drug abuse	4 supportive friends, family and community network	7 improved health	26 improve roads and bridges	8 livelihood diversity	17 freedom to travel	3 access to drinking water	28 toilets and sanitation
14 special support for physically challenged&elderly	9 job/income security	1 control school dropouts	27 ability to run own enterprise	25 improve public transport	19 able to roam safely	15 adequate shelter	18 access to electricity for all households

Interpretation of the factors

Wording	F1	F2	F3
1. Control school dropouts	0	-2	1
2. Access to education for all (incl. primary, 2ndary, college/ higher, postgrad, adult, professional etc)	1	3	2
3. Access to drinking water	3	3	-2
4. Supportive friends, family& community network (incl. membership of community org)	0	1	2
5. Freedom of choice over own life	-2	1	0
6. Reduced risk of premature death (child death, road accidents etc)	0	0	0
7. Improved heath	2	1	1
8. Livelihood diversity (non-team, driving, tourism etc)	-1	-1	0
9. Job/ income security	0	2	2
10. Able to hire labourers to assist with agriculture	1	-1	0
11. The freedom of women to work after marriage	-1	0	1
12. Ability to continue working in old age	-2	0	0
13. Access to Anganwadi (extended hours, transport)	-2	-2	-2
14. Special support for physically challenged& elderly	2	2	3
15. Adequate shelter	0	2	-2
16. Adequate nutrition	0	0	-1
17. Freedom to travel (personal/ religious e.g. Haj, Taj Mahal, Delhi, Sabarimala, Velankanni)	-3	-1	-1
18. Access to electricity for all households	0	0	-3
19. To roam safely (e.g. streetlights)	0	0	-1
20. Pollution of the environment	2	-1	1
21. Climate change	0	-2	0
22. Issue of alcoholism, drug abuse	3	0	3
23. Sports and arts clubs/ recreation	-1	-3	-1
24. Being able to take part in political decision-making (freedom of speech/ association)	-3	-3	0
25. Improved public transport	0	0	0
26. Improved roads and bridges	1	0	0
27. Ability to run own enterprise (Kudumbashree/ SMME)	-1	1	0
28. Toilets and sanitation	1	0	-3

Consensus Statements

- 6. Reduced risk of premature death (child death, road accidents etc)
- 13. Access to Anganwadi (extended hours, transport)
- 25. Improved public transport

Almost consensus statements

- 7. Improved heath
- 8. Livelihood diversity (non-team, driving, tourism etc)
- 14. Special support for physically challenged& elderly
- 19. To roam safely (e.g. streetlights)
- 26. Improved roads and bridges

Factor 1 Interpretation

Using a crib sheet method for assisting with interpretation development by Simon Watts during his PhD studies (Watts and Stenner 2006 p150-157), below we start the interpretation of factor one.

Table 5.3 Factor interpretation crib sheet for Factor 1

Items Ranked at + 3
03. Access to drinking water
22. Issue of alcoholism, drug abuse
Items Ranked at + 2
07. Improved health
14. Special support for physically challenged& elderly
20. Pollution of the environment
Items Ranked Higher in Factor 1 Array then in Other Factor Arrays
20. Pollution of the environment
10. Able to hire labourers to assist with agriculture
07. Improved health
26. Improved roads and bridges
Items Ranked Lower in Factor 1 Array then in Other Factor Arrays
05. Freedom of choice over own life
09. Job/ income security
12. Ability to continue working in old age
17. Freedom to travel
27. Ability to run own enterprise
Items Ranked at - 2
#13 access to Anganwadi
#5 freedom of choice over own life
12 being able to continue working into old age
Items Ranked at - 3
17 freedom to travel
24 being able to take part in political decision making

Rationale statements

These statements we're collected from every participant via a short interview as part of the fieldwork after they had completed their ranking, giving them an opportunity to explain their rationale for placing a particular issue as one of their two most or two least important within their QSort. In addition to the statements on the rationale of why an issue ranked most or least important, for the two issues ranked by an individual as most important, they were further asked if they had any suggestions to help address the issue, and these suggestions are included in the factor profile developed below to enhance the depth and richness

Factor 1 profile

For traditional QMethod analysis ranking at a range of statements related to one topic, for each factor it is possible to identify which of the loading QSorts most closely correlate to an identified factor and to use the rationale of those individuals as proxies for the views of the group. These individuals are known as exemplars. However, since the ranking task in this research was across a range of primarily non-connected issues, we can adapt a similar technique to identify which of the higher correlated QSorts align with each of the particular issues that rank within the factor's most and least important issues, and draw out the corresponding rationales to produce a composite picture of the factor's characteristics.

Below we show different possible ways of drawing out the rationales for the issues highlighted by the factor. As the additional information gather only relates to the two least important (-3) and the two most important statements (+3) of each QSort, the focus of the analysis will be around them. In the first analysis: Factor 1a, we identify the exemplar QSorts of the five most correlated individuals to the factor and their rationales for their most and least important issues. These are used to create a composite profile for the factor which could be used to represent those who loaded onto the factor. The number of positions away from +3 or -3 for the factor is included, so that if it is a match as a least or most important statement it is allocated a 0 and if it is from position +/-13 to 5 then its allocated 1 and for positions +/-6-9 its allocated a 2. If an issue does not match on the same side of the QSort as the factor, then it should be dismissed: ie if a least important factor for an individual sits within the top nine issue on the factor, then it should not included in creating the profile as it will allocate a negative statement to a positive ranking or visa versa. If the statement falls within the neutral (0) middle 10 statements, this could be included to help capture view on some of the less common positions and allocated a 3. We list the rationales by statement, ordering the responses by the view of the most correlated QSort first.

Options for analysis – option one top five loading individuals

Exemplars for Factor 1a **included** **not included**

Factor 1 – 130 loaded

←most important			neutral		least important →		
+3	+2	+1	0	0	-1	-2	-3
			1	4			
		2	6	9	8		
	7	10	16	15	11	5	
3	20	26	18	19	23	12	17
22	14	28	25	21	27	13	24

Factor 1 – **exemplar B 31602** 0.7550841

←most important			neutral		least important →		
+3	+2	+1	0	0	-1	-2	-3
			5	4			
		2	10	9	8		
	1	6	11	19	18	23	
14	3	7	12	21	26	24	13
22	20	16	15	28	27	25	17

Factor 2 – **exemplar D 08803** 0.7440723

←most important			neutral		least important →		
+3	+2	+1	0	0	-1	-2	-3
			1	5			
		2	4	13	10		
	7	18	6	14	11	15	
3	20	25	9	16	12	17	8
22	26	28	19	27	23	21	24

Factor 1 – **exemplar A 03802** 0.7644395

←most important			neutral		least important →		
+3	+2	+1	0	0	-1	-2	-3
			7	2			
		1	11	4	9		
	14	18	12	5	10	8	
3	16	20	19	6	15	13	21
26	22	28	25	17	27	23	24

Factor 2 – **exemplar C 10703** 0.7540527

(rationale in Malayalam & English)

←most important			neutral		least important →		
+3	+2	+1	0	0	-1	-2	-3
			5	4			
		2	7	8	1		
	6	12	18	9	15	11	
3	14	27	18	10	16	23	13
22	20	28	26	21	25	24	17

Factor 2 – **exemplar E 22803** 0.7418324

←most important			neutral		least important →		
+3	+2	+1	0	0	-1	-2	-3
			1	2			
		7	4	16	5		
	14	20	10	17	8	11	
3	18	26	15	19	9	21	12
6	22	27	28	25	13	23	24

Rationale: most important

3 access to drinking water: 0 i We are not getting enough drinking water. We are dependent on the panchayat water supply and are not getting water frequently. There needs to be proper implementation of the jalandidhi programme ii Access to drinking water is common issue here. The piped water is not available every day and the pipes are always damaged. iii in this ward iv We are having drinking water scarcity. And whilst we have applied to the government for a public well, until now we did not get. The panchayat should provide drinking water to all households who are lacking water. They should also construct public wells and ponds.

22 issue of alcoholism, drug abuse: 0 i The issue of alcoholism and drug abuse is a common problem in society, and I am personally affected as my father-in-law is an alcoholic. There are some support groups, including through the local church which she is a member of. ii Issues within families are on the increase due to alcohol consumption. It is especially badly affecting the lives of the children.

14 special support for physically challenged& elderly: 1 My mother-in-law suffers a lot and doesn't get any help or support from any organisation or from the panchayat. I am a volunteer for a palliative care union. A more local hospital is needed

Rationale: least important

17 freedom to travel: 0 i I already have the freedom to travel and nowadays, everyone has this freedom. ii The freedom to travel is not such an important issue as everyone has that right now

24 being able to take part in political decision making: 0 i I am not interested in being part of political decision making ii I am not political. I have gone to the gramsabha to state my issues and request a house but they did not give as we haven't been to other meetings.

12 Being able to continue working into old age: 1 Older people should not have to work and should be given the care and protection they need.

13 access to Anganwadi: 1 i I am happy with the current working of the Anganwadi ii All facilities are now available in the anganwadi so less of an issue, however I think it is necessary to start the angawadi earlier in the day for those parents who are going to work.

8 livelihood diversity: 2 I am a farmer and have always been a farmer, I'm not interested in

The key problem with the analysis as shown for Factor 1a is that whilst it draws out the rationale of the individuals whose QSorts most correlate with the factor, it highlights issues that are ranked more centrally (26, 6, 8, 21) and misses commentary of some issues which the factor has identified as even more or less important (7, 20, 5). In looking to address this, the analysis presented in Factor 1b going further, adding additional exemplars up to the point where all five most important and five least important issues of the factor have at least one rationale, and excluding those of issues within the more central columns so as to ensure the focus is on the more defining issues for the factor. For the Factor 1b example below, it takes to eight exemplar QSorts (A-H) to ensure at least one rationale.

Exemplars for Factor 1c 5 most& least important issues only, at least one comment

Factor 1 – 130 loaded **included** **not included**

←most important			neutral		least important →		
+3	+2	+1	0	0	-1	-2	-3
			1	4			
		2	6	9	8		
	7	10	16	15	11	5	
3	14	26	18	19	23	12	17
22	20	28	25	21	27	13	24

	MI1	MI2	LI1	LI2
exemplar A 03802 0.7644395	03	26	21	24
exemplar B 31602 0.7550841	14	22	13	17
exemplar C 10703 0.7540527	03	22	13	17
exemplar D 08803 0.7440723	03	22	08	24
exemplar E 22803 0.7418324	03	06	12	24
exemplar F 25602 0.7079803	07	14	13	23
exemplar G 12105 0.6359293	02	04	05	12
exemplar H 18003 0.5858864	03	20	23	24

Most Important	Factor 1	#	Least Important	#
3 access to drinking water: 0 41	i We are not getting enough drinking water. We are dependent on the panchayat water supply and are not getting water frequently. There needs to be proper implementation of the jalanidhi programme		17 freedom to travel: 0 26	i I already have the freedom to travel and nowadays, everyone has this freedom. ii The freedom to travel is not such an important issue as everyone has that right now
	ii Access to drinking water is common issue here. The piped water is not available every day and the pipes are always damaged.			
	iii In this ward we are having drinking water scarcity. & whilst we have applied to the government for a public well, until now we did not get. The panchayat should provide drinking water to all households who are lacking water. They should also construct public wells & ponds.			
	iv The available of water is a problem here. As we are in a high area, we don't have our own well, so we take water from a pubic well. Spending money to build a well has issues because it is a high area.			
22 issue of alcoholism, drug abuse: 0 51	i The issue of alcoholism and drug abuse is a common problem in society, and I am personally affected as my father-in-law is an alcoholic. There are some support groups, including through the local church which she is a member of.		24 being able to take part in political decision making: 0 59	i I'm not interested in being part of political decision making ii I'm not political. I went to the gramsabha to state my issues& request a house but they did not give as we haven't been to other meetings. iii I am not interested in politics. iv My husband does not allow her to take part in political decision making.
	ii Issues within families are on the increase due to alcohol consumption. It is especially badly affecting the lives of the children.			
7 Improved health: 1 14	i Good health is the most important in our lives and we must improve our health. We currently buy vegetables that are full of artificial fertilizer and causes damage to our health. The govt should actively help to improve our health & we should use natural fertiliser that will improve our health.			
14 special support for physically challenged& elderly: 1 24	i My mother-in-law suffers a lot & she doesn't get any help or support from any organisation or from the panchayat. I am a volunteer for a palliative care union. A more local hospital is needed		12 Being able to continue working into old age: 1 18	i Older people should not have to work and should be given the care and protection they need.
	ii We must support the physically challenged as it is very difficult for them to live alone. We must provide help to such people. My husband is deaf and dumb, &he suffers very much so it is very important to support the physically challenged.			
20 Pollution of th environment: 1 18	i Protection of the environment is more important to me for avoiding disease and for better health. Waste management: everyone should take care of their surrounding and awareness classes should be provided to the people.		13 access to Anganwadi: 1 24	i I am happy with the current working of the anganwadi
				ii All facilities are now available in the anganwadi so less of an issue, however I think it is necessary to start the angawadi earlier in the day for those parents who are going to work.
				iii They are small children, there time at the anganwadi should not increase.

The analysis presented above gives us a little more structure than the previous 1a analysis. Drawing from just eight loaded QSorts, it provides some limited insights into why those associated with this factor have chosen the five most and five least important issues. However, it leaves the details somewhat skewed, providing more information for those issues that more of the higher correlated QSort chose and less for those issues for which we needed to go further down the correlation list to find the first commentary.

Taking this analysis one step further then, we develop profile Factor 1c below by drawing out the rationales from the five most correlated QSorts for each of the five most important issues and five least important issues of the factor. This method of profiling mean we can include a good and equal number of comments for each of the issues defining the factor. This enables views from multiple individuals to be used to get more depth of detail around all of the most and least common issues without required a full analysis of all the comments of every loaded QSort. As each participant's QSort has accompanying commentary for both their two most important identified issues and two least important identified issues, this means that there is a theoretical minimum of 13 QSorts and a theoretical maximum of 50 QSorts contributing the 50 statements: 25 'most important' statements and 25 'least important' statements, that make up the profile. Given the high similarities in the ranking of the issues between the most correlated QSorts, it is likely that the number of loaded QSorts required to produce the profile would be between 15-25, three to five times the number used to produce the Factor 1b profile.

For developing Factor 1c profile we draw on the respective commentary for each of the identified issues, from the highest correlating QSorts and the unique code for the specific QSort is included with the statement. We have included against each of the ten issues the total number of loaded QSorts which identified that particular issue among their two most or two least important issues under each issue, alongside identifying its position on the factor eg +3 or +2, and -3 or -2. For the five least important issues; in position -3 and -2 on the factor, the

information from the interviews as to why the participant ranked the particular issue as least important provided. For the five important issues; in positions +3 & +2 of the factor, in addition to the rationale as to why they had positioned each of their chosen 2 issues as most important, we also asked if they had any further reflections and suggestions as to what might be able to be done to support or improve the issues they had identified as important. Not every participant provided additional information or suggestions, so there may be no corresponding statement.

Where a statement expresses a sentiment which is essentially the same as an already recorded statement for that issue on the factor, we provide each unique code against the statement for each of the multiple QSorts that expressed that sentiment. We continue down the ordered list of correlated QSorts for that particular issue until we find the next unique sentiment, up to the total of 5 statements or until all loaded QSort are included. This means that theoretically there is no maximum limit to the number of QSorts whose commentary can be included in the profile, up to the total loaded who ranked that particular issue most or least important. After the three profiles, we then look at how their corresponding statements can be combined to provide insight into each of the specific issues as they are seen across the community.

Profile for Factor 1c: Health& environment 5 most and least important issues top 5 comments

Factor 1 profile included not included											Five least important issues																																																																							
<div>Factor 1 – 130 loaded</div> <table><tr><td colspan="3">←most important</td><td colspan="2">neutral</td><td colspan="3">least important →</td><td colspan="2"></td></tr><tr><td>+3</td><td>+2</td><td>+1</td><td>0</td><td>0</td><td>-1</td><td>-2</td><td>-3</td><td colspan="2"></td></tr><tr><td colspan="3"></td><td>1</td><td>4</td><td colspan="4"></td><td colspan="2"></td></tr><tr><td colspan="3"></td><td>2</td><td>6</td><td>9</td><td>8</td><td colspan="3"></td></tr><tr><td colspan="2"></td><td>7</td><td>10</td><td>16</td><td>15</td><td>11</td><td>5</td><td colspan="2"></td></tr><tr><td>3</td><td>14</td><td>26</td><td>18</td><td>19</td><td>23</td><td>12</td><td>17</td><td colspan="2"></td></tr><tr><td>22</td><td>20</td><td>28</td><td>25</td><td>21</td><td>27</td><td>13</td><td>24</td><td colspan="2"></td></tr></table>										←most important			neutral		least important →					+3	+2	+1	0	0	-1	-2	-3						1	4										2	6	9	8						7	10	16	15	11	5			3	14	26	18	19	23	12	17			22	20	28	25	21	27	13	24			<div>5 freedom of choice our own life: -2</div> <div>20 (15.4%)</div>	<div>i Everyone now has the freedom to choose/ live how they wish. There are no restrictions. 28213, 36312, 38214, 27413, 18413, 36613</div> <div>ii The other issues are greater problems in comparison 30917</div> <div>iii we have no issue with personal freedom 15612</div> <div>iv I already have freedom to make my own decisions 42913</div> <div>v I do not want to take decisions on my own, rather along with the family 36813</div>
←most important			neutral		least important →																																																																													
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22	20	28	25	21	27	13	24																																																																											
<div>17 freedom to travel: -3</div> <div>26 (20%)</div>		<div>I I already have the freedom to travel, nowadays everyone has this freedom 42713 34314 27523</div> <div>ii The freedom to travel is not such an important issue as everyone has that right now 21814</div> <div>iii I didn't like to travel 33515</div> <div>iv I've no issue with roaming around freely 15612</div> <div>v there is freedom to travel, but finance for travel is not available which is more important 19713</div>								<div>12 Being able to continue working into old age: -2</div> <div>18 (13.8%)</div>	<div>I Older people should not have to work& should be given the care& protection they need 33914 11715 11913</div> <div>ii The elderly are always/ should be taken care of by their children or someone 34314/ 33314</div> <div>iii We should be taking care of old people. Allowing them to work would badly affect their health 29615</div> <div>iv When old people work, job opportunities for youngsters will be low 23216</div> <div>v Everyone already has the freedom to work after they get old 36412</div>																																																																							
<div>24 being able to take part in political decision making: -3</div> <div>59 (45.4%)</div>		<div>I It is useless to take part in such activities. Democracy is just for politicians to make money 36312</div> <div>ii I'm not interested in being part of political decision making 33914/ 11715</div> <div>iii I have not yet been involved with political parties & have not participated in any gramsabha as I am only eighteen. 41419</div> <div>iv I'm not political. I went to the gramsabha to state my issues& request a house but they did not give as we haven't been to other meetings. 19914</div> <div>v My husband does not allow me to take part in political decision making. 29114</div>								<div>13 access to Anganwadi: -2</div> <div>24 (18.5%)</div>	<div>i already the anganwadi workers are having a high workload and they are not getting enough wages, so if we are increasing the time then it will affect the functioning of anganwadis 42912</div> <div>ii I am happy with the anganwadi's current working 42713</div> <div>iii I didn't get any benefits through anganvadi 18214</div> <div>iv All facilities are now available in the anganwadi so less of an issue. It is however necessary to start the angawadi earlier in the day for those parents who are going to work 21814</div> <div>v anganvadi is near the house and vehicles came regularly 15413</div>																																																																							

Factor 1 summary (*130 loaded QSorts*): factor one is characterised by having least concern over various freedoms: the freedom to travel (26), of political participation (59), or of choice over own life (20) with highly correlated QSorts stating that there are no restrictions on such freedoms, or that they are not interested to pursue them. They are also less concerned over access to anganwadi for children of working parents (24) or of the ability of older people to work (18), feeling that the current arrangements at the angamwadi are sufficient and that the elderly either should not have to work, already have this freedom, &/or should not take working opportunities from younger citizens. Of the most important issues, alcoholism and drug abuse was considered by two fifth (51) of loaded QSorts as one of their two most important issues.

It was seen as socially destructive, high prevalence, and getting worse and that the govt should ban its sale, arrange awareness classes and the community should form support groups for those afflicted and their families. A third of loaded QSorts expressed that they are struggling with access reliable access to drinking water (42), especially in the summer with additional concerns over water pollution. There is a desire for an expansion of the government's jalandini piped water programme and for state financing for private and public wells. A related important issue is concerns over pollution of the environment (18) including waste management, especially plastic waste, leading to environmental degradation, pollution and health issues. Improved health (14) was also seen as an important issue with concerns over the cost and access of health care and especially the distance to the hospital being an issue, and special support for physically challenged and elderly (24) seen as deserved and needed.

Issue	Statements from highest loading QSorts	Suggestions
3 access to drinking water: - 3 42 (32.3%)	i Drinking water is essential for life. We are facing a problem; we have to take water from a neighbour's house in the summer. 38214	i We have to store rain water in the rainy season & must not pollute drinking water resources 38214
	ii Many people are not getting enough water during summer season. 42912/ 11715	ii It can be solved through construction of public well& ponds or pipeline 42912/ 11715
	iii we are having drinking water scarcity, and whilst we have applied to the govt for a public well, until now we did not get. 33914	iii The panchayat should provide drinking water to all households who are lacking water. They should also construct public wells and ponds. 33914
	iv The most urgent issue in our ward is drinking water. I have a well but my neighbour doesn't so they collect water from my well 19914	iv People contact & requested from the panchayath 19914
	v To sustain life, we need drinking water. However, the natural water sources are being polluted. As humans pollute the water, so it is the sole responsibility to stop using chemical pollutants. 34314	v Govt should help with various projects 34314
22 issue of alcoholism, drug abuse: -3 51 (39.2%)	i It is the reason why many families are destroyed 36312/ 11913	i Socially responsible/ popular people should campaign to create awareness 36312/ 11913
	ii alcoholism is very prevalent in society. Neighbours use alcohol, women& children suffer. It badly affects children's study 42912	ii The availability of alcohol should be reduced, for that the government should take initiatives. 42912
	iii Use of drug & alcohol is very unhealthy. Some drunkards make a lot of irritation for others 19914	iii Government should ban the sale of alcoholic beverages 19914
	iv Issues of alcoholism& drug abuse is a common problem in society, & I am personally affected as my father-in-law is an alcoholic. 42713	iv There needs to be support groups, incl. some existing such as through the local church I am a member of 42713
	v alcoholism and drug abuse is the biggest issue in our society. Especially among tribal population (kurichiya , paniyarr, kuruma) and children who drop out of school at year 6/7. There should be awareness classes about drugs in the school, from the panchayath or police dept 34314/ 29604/ 38513	v Govt should try& do something, but has a vested interest to sustain such activities to increase their income. Regular income jobs can help overcome difficulties, (& therefore better decision making& a better live). Govt should create jobs& employ from tribal populations. 34314/29604/38513
7 Improved health: -2 14 (10.8%)	i for better health it is important to control ourselves. Alcohol can cause health issue, elder has issues accessing hospital. 19915/ 16514	i Exercise is also important to increase health. and a local health centre/ hospital would be useful 19915/ 16514
	ii Good health enables people to earn livelihood. I suffer so many diseases& can't do any job v well. 24913/ 16613	ii Govt should increase number healthcare centres & operations& provide free access to hospitals 24913 16613
	iii Health is very important for humans. The health sector is expensive right now. People are getting more lifestyle diseases, & food items have many chemicals& people are getting cancer. 15612	iii The government need to control the chemicals& people should grow their own vegetables. 15612
	iv health is most important in our life 13512/ 27523	iv Under panchayat/ govt, a nutritional program to contact & provide good nutritional food& medicine 13512/ 27523
	v Good health is the most important thing in our lives& we must improve our health. We currently buy vegetables that are full of artificial fertilizer & causes damage to our health. 36713	v Govt should actively help to improve our health& we should use natural fertiliser to improve our health 36713
14 special support for physically challenged& elderly: -2 24 (18.5%)	i Old people and people with disabilities are the most deserving people, they should receive help 36312 / 23714/ 24023	i Govt and panchayat should set up palliative care centre, and organised groups 36312
	ii So many households are facing the problem and do not help from other. So many youths cannot take care of their parents. 11913/42713	ii Govt must give funds for medical purpose and take care of help needed parents, a local hospital is needed 11913
	iii We must support the physically challenged as it is very difficult for them to live alone. My husband is deaf and dumb and he suffers very much 37714/ 36713	iii It is very important to support the physically challenged, we must provide help to such people. 36713
	iv My mother was bedridden in old age so many people helped 19915	iv Govt should create palliative centre 7 help old aged 19915
	v I work in a post office & we have pension distribution for elderly & disabled people, still many people do not know about it. 42913	v its better to send pension through money order 42913
20 Pollution of the environment: -2 18 (13.8%)	i Waste from shops, houses being thrown around& it is increasing. 38214	i Waste has to be put in a common place – even putting it all in a bit hole is acceptable 38214
	ii There is no proper waste management here. 37312	ii The panchayat/govt must control plastic usage; control plastic drink bottles – esp. for alcohol. Instead of plastic – use science to develop more natural materials 37312
	iii Pollution is mainly happening here because there is no proper way to manage plastic waste. 29313	iii We must recycle plastic and use paper bags whenever possible. We should give opportunities to 121ressure121ree to do the training to make paper bags 29313
	iv Our place faced the problem of pollution that leads to many health issues 23215	iv panchayath should develop a plan to remove waste 23215
	v Due to our current lifestyle, it is becoming harmful to all living things creating health problems. This includes water& air pollution, as well as non-biodegradables 18413	v Through paid labour schemes (NREGA/ 121ressure121ree) plastic waste to go to recycle plants. Panchayat should also have recycle collection vehicles. Every household should be encouraged to recycle themselves, and they can produce compost and biogas. For water pollution, the sanitation system needs to be improved. 18413

Profile for Factor 2 Lifelong stability from state support

Factor 2 included not included		Five least important issues	
<div>Factor 2 – 122 loaded</div> <div><div><div>←most important</div><div>neutral</div><div>least important →</div></div><div><div><div>+3</div><div>+2</div><div>+1</div><div>0</div><div>0</div><div>-1</div><div>-2</div><div>-3</div></div></div><div><div><div></div><div></div><div></div><div>11</div><div>6</div><div></div></div><div><div></div><div>4</div><div>12</div><div>16</div><div>8</div></div><div><div></div><div>9</div><div>5</div><div>18</div><div>19</div><div>10</div><div>1</div></div><div><div>2</div><div>14</div><div>7</div><div>26</div><div>22</div><div>17</div><div>13</div><div>23</div></div><div><div>3</div><div>15</div><div>27</div><div>28</div><div>25</div><div>20</div><div>21</div><div>24</div></div></div></div>		<div>1 Control School Drop Outs : -2</div> <div>12 (9.8%)</div>	<div>i at the present time all children are going to school so it's not such important issue 17201 08112</div> <div>ii school dropouts is least important when compare to other issue 11303</div> <div>iii I don't have school aged children 30701</div> <div>iv The drop out students have other opportunities and will be admitted to other institutions 09202</div> <div>v my children are going to school so not an issue 13803 27601</div>
<div>23 Sports & Arts Clubs/ Recreation : -3</div> <div>51 (41.8%)</div>	<div>i I am not interested in sports and arts 07002 22403 22802 14902 07601 00202 03202 11303</div> <div>ii Nobody here is interested in this, nobody is going to this too 27602</div> <div>iii we have three daughter who are all married off. We are old now so it's not important for our family at the moment 06802</div> <div>iv Not as important as the other issues 26202</div> <div>v Here there are no working arts sports clubs. The is one club building but is not used 11702</div>	<div>13 access to Anganwad i: -2</div> <div>16 (13.1%)</div> <div>i We are using primary schools. We don't need anganwadi right now 01505</div> <div>ii currently it is not important in our life 03201 26002</div> <div>iii We already have lots of anganwadis & people are choosing nurseries over them 06302</div> <div>iv Compared to other issues, this is less important 11006</div> <div>v I think anganwadis have no problem now 11007</div>	
<div>24 being able to take part in political decision making: -3</div> <div>42 (34.4%)</div>	<div>i I am not interested in politics/ political decision making 17201 18102 09902 00202 05002 22802</div> <div>ii Politics is not important to me 14404</div> <div>iii I don't like politics 03202</div> <div>iv we couldn't get any favourable decisions from politics 03201</div> <div>v I have attended gramsabha but not actively participated. I don't get any help& don't need any support at the moment. My children get no financial support from schools either 11702</div>	<div>21 Climate Change: -2</div> <div>31 (25.4%)</div> <div>i I don't have any issue with that 07002</div> <div>ii I have not faced any problem because of climate change 21301 05002 01312</div> <div>iii climate change didn't affect me 22403 10401 11302</div> <div>iv We can't control climate change, it is not in our hands 01505 27602 26202 30701</div> <div>v I don't have any agriculture, so I don't even think about it 03902</div>	

Factor two is characterised by a focus on future stability and state support. Whilst education is seen as highly important for future income and status, they see no issue of school dropouts or with access to the anganwadi. They don't feel they are affected by, or can make a difference to, climate change and have no interest in engaging with sports and arts. As with factor one, drinking water is also a key issue for this group, urging for govt intervention to ensure a stable, regular supply. Alongside employability through education, a stable income is seen as highly important to meet basic needs and enable betterment in life, the important and need for expansion of the NREGA highlighted.

Group members felt that a good home was also necessary for a good and secure life, with the state support should go beyond the current support for BPL and ST to APL and general category, alongside charitable support from community and commercial banks. Special support for the physically or mentally challenged, and the elderly was also seen as particularly important, with group members calling for greater state support for pensions and medicine, as well as food and clothes.

Issue	Statements from highest loading QSorts	Suggestions
2 Access to education for all (incl. primary, secondary, higher, postgrad, adult, professional etc) 27 (22.1%)	i the government provide education for all but the backward class didn't use it properly. 22403	I build collage/ higher education centers within the panchayat. 22403
	ii Nowadays should have education. We need qualifications for all jobs. Teenagers are becoming alcoholics, so we must be careful 01505 26202	ii We need to identify those not in education in society& make them aware eg via kudumbashree and returned back 'Saksharatha' program 26202
	iii Higher ed. Is financially not available to us. We didn't have problems with education up to +2. We may have to find 3 lakh for entire course 03902	iii We need funds from the govt, and the anticipated course is far away from here 03902
	iv I am not educated, so I am aware about the importance of education. 30901 08112	iv Govt must follow the increase in value of education, & must build our education system& curriculum. 08112
	v For the current way of life in society, education is a must. Fewer people are engaged in agriculture, so to have a stable income, you have to get a proper job& that is only possible through education 24601	V Students should get help from both parents and I think the govt helps, but it is most important that the parents are responsible to ensure the children study 24601
3 access to drinking water: 0 44 (36.1%)	I access to drinking water is most important 17201	I I gave request to the panchayath. There is of jalanidhi programme but the authorities not responded yet 17201
	ii Water access here is limited. We don't get much water in summer& have to use panchayat well. 18102	ii We must all use water carefully 18102
	iii We are having water scarcity. The govt started a scheme called the Rajeev Gandhi drinking water scheme but it is not good to drink 22802	iii The panchayat should provide a public well 22802
	iv Drinking water is essential. 27602	iv Panchayat has to take initiative & provide finances for digging well. I am having one well so we are not having at issue now, but most people are affected by this 27602
	v We have difficulties accessing drinking water 14404	v authorities should give importance to sorting the drinking water issues 14404
9 Job/ Income security: 1 11 (9.0%)	I Without a job (income) we cannot meet basic requirements such as food shelter, clothes etc. 14902	I There should be regular income through agricultural labour 14902
	ii Any job is based on salary and safety, this is most important 11702	ii
	iii There are a lot of unemployed people without a job& expenses for a normal life are rising 06302	iii NREGA work must be increased. Women have particular issues, esp. for working outside 06302
	iv It is very important to have regular income to live a better life p26503 22104 11007	iv I only go for NERGA work
	v I don't currently have a permeant job& want one. I want to run own business with 2 or more staff. As industrial worker, health &safety is problematic& welding has badly hurt his eyes. 07001	v A use of shield-glass to protect his eyes would help. Govt has provided up to 4 lakh to help people from the tribal communities start businesses – this should be expanded 07001
14 special support for physically challenged& elderly: 1 21 (17.2%)	I Old people didn't get proper support or treatment. I work in a hospital so I know about that. 22403	I provide support for elder people through govt, health department or some trust. 22403
	ii Now I am getting old, I consider it as a big problem, but my children support 18102	ii Old people without supportive family should get support from the community, such as financial assistance, help with medicines, food, clothes 18102 05101
	iii special support for old agers is an important thing, &the people who are living in this family are not getting any kind of helps from the panchayat& community 07601	iii the panchayat should provide pension to all old age people in the community 07601
	iv Kudumbashree help the physically challenged people financially. The panchayat also helps them by giving so many things	iv
	v special support for mentally challenged because her son is mentally challenged	v
15 Adequate Shelter: 1 22 (18.0%)	i I really want to build a new house, it is my dream because my house is old and damaged 17201	i I want to apply to panchayath for funds but will not get as we are APL& priorities for are for BPL& ST 17201
	ii Having adequate shelter is most important 22802 07002	ii The panchayat had agreed to contribute to a house for them but have not allocated the funds
	iii House is an important factor to being a family in a home together 27602	iii bank should give non return funds like the govt is giving 27602
	iv I do not have a proper house and have not got any help from the mosque or our community 10401	iv
	v Houses are very important. I saw a very large number of families without houses. 06302	v We have to increase the funds from govt and we must fund general category not just STs 06302

Exemplars for Factor 3 Community focused, home & utilities secure

Factor three is characterised by having home infrastructure and utility security: including already having a good home with no issues with toilet and sanitation or electricity, as well as no issue with access to drinking water. In addition, they don't use the anganwadi, either preferring kindergarten/ nursery or having no children in the household. Community and state support for the physically challenged and elderly is a high priority, especially among those in need of support but also those who feel it is the right thing to do, as is the importance is supportive friends, family and community network. The priority issue of alcoholism and drug abuse call for intervention by the state through police and panchayat as well as community, and likewise for those

Factor 3 included not included																																																																
<div>Factor 3 – 79 loaded</div> <table><tr><td colspan="3">←most important</td><td colspan="2">neutral</td><td colspan="3">least important →</td></tr><tr><td>+3</td><td>+2</td><td>+1</td><td>0</td><td>0</td><td>-1</td><td>-2</td><td>-3</td></tr></table> <div><table><tr><td></td><td></td><td></td><td></td><td>6</td><td>5</td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td>1</td><td>10</td><td>8</td><td>16</td><td></td><td></td></tr><tr><td></td><td>2</td><td></td><td>7</td><td>12</td><td>21</td><td>17</td><td>3</td><td></td></tr><tr><td>14</td><td>4</td><td></td><td>11</td><td>26</td><td>25</td><td>19</td><td>13</td><td>28</td></tr><tr><td>22</td><td></td><td>9</td><td>20</td><td>27</td><td>28</td><td>23</td><td>15</td><td>18</td></tr></table></div>		←most important			neutral		least important →			+3	+2	+1	0	0	-1	-2	-3					6	5							1	10	8	16				2		7	12	21	17	3		14	4		11	26	25	19	13	28	22		9	20	27	28	23	15	18	<div>3 Access to drinking water -2</div> <div>14 (17.7%) completed</div>	<div>i We already have a well (Panchayat well) with lots of water in, as do my neighbours 21902 24602 12402</div> <div>ii Whilst drinking water is very important, we have a well so not an issue at the moment 05203</div> <div>iii We have plenty of water, as do all houses 23802</div> <div>iv we are getting enough water in this side of the ward 24202</div> <div>v We already get water. We don't have a well but the panchayat well & pipeline are near the house 26302</div>
←most important			neutral		least important →																																																											
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14	4		11	26	25	19	13	28																																																								
22		9	20	27	28	23	15	18																																																								
<div>28 Toilets and Sanitation -3</div> <div>19 (24.1%) completed</div>	<div>i We already have a toilet 05203 10613 13502 08101 11203 24602 24201 22602 21902 22601</div> <div>ii Earlier most homes did not have toilet or sanitation facilities, but now it is available everywhere 29606 28402</div> <div>ii Toilet facilities are available in every household. The central govt has a project which helps in their construction 11207 28402 24902 23802 13604</div> <div>iii panchayat now providing everybody who was not having a toilet, no longer a priority 16201 05205</div>	<div>13 access to Anganwadi: -2</div> <div>14 (17.7%) completed</div>	<div>i our children are grown up/ we have no children. So not needed now 24502 10001 03603 11203 23201</div> <div>ii The children are small so I don't feel the time needs to be extended and it is close to our house so no transport is needed 17801 19402 08502</div> <div>iii No one is going to Anganwadi now. It must be modified to new type of approach. Nursery system must be taken as a model 00603</div> <div>iv There is already proper transportation. In every ward, anganwadi is easily accessible to all. On timing, it is not good to keep the children away from the parents for too long</div> <div>v We don't need the anganwadi now, we prefer the kindergarten 01705</div>																																																													
<div>18 Access to electricity for all household – 3</div> <div>31 (39.2%) completed</div>	<div>i We have already electricity 08502 25401</div> <div>ii Every/ most of the houses have electricity 17803 00603 21501 06414 06414 17601 12701 10103</div> <div>iii Electricity is now available everywhere. It is very easy to get electricity nowadays 11207 06702 06001 22601</div> <div>iv There are no houses in this ward without electricity 18301 09911 12402</div> <div>v There is electricity in every household even in very small houses. I haven't seen houses without electricity 07303</div>	<div>15 Adequate Shelter: -2</div> <div>9 (11.4%) completed</div>	<div>i I already have a good home 08101 06414 22111 06001 24802 02302 26302 01902 23502</div> <div>ii</div> <div>iii</div> <div>iv</div> <div>v</div>																																																													

Issue	Statements from highest loading QSorts	Suggestions
14 special support for physically challenged& elderly: + 3 13 (16.5%)	i I am in pain, and a palliative care member. People saw that I was in a lot of pain& some households& shops donate money. 21902	i Panchayat should participate and give some help 21902
	ii We should help old age people& those bedridden 16701 17804	ii govt should give helps through palliative care 16701 17804
	iii We are not getting any help from anywhere. It is a must 19402	iii Govt can provide some help eg money/medicines 19402
	iv There is a tendency in society to disown disabled or old people. I know some families where this has happened 11207	iv It would be helpful for the panchayat/ govt should find the funds and run an institute to are for such people 11207
	v I am too old& cannot work. I want to get help from the panchayat eg pension& nutritious food. My youngest son is a famer, he is half blind& takes care of us. I get a pension from panchayat 24602 06001	v More help needed from panchayat 24602 06001
22 issue of alcoholism, drug abuse: + 3 27 (34.2%)	i I have seen many families around me being destroyed because of this. 24502	i Janamaithri police should visit affected colonies. People should respond to this problem through gramsabha Affected families should be bold & try to stop it. 24502
	ii Many families are destroyed because of this, though we have no problem in my home 28402	ii Govt should completely ban the sale of alcohol 28402
	iii So many people are addicted by alcohol. It affects children study many teenagers are getting addicted to it. 08502 17804 17803	iii Govt should stop source of alcohol 08502
	iv In our society alcohol is used by many and this is the most important. So many people spend their wages on alcohol when it should be spent on their children's future and education 25401	iv Religious leaders should advise those in their community not to use alcohol. The government should give awareness classes on the issues of alcoholism 25401
	v so many are drinking in the neighbourhood it is the most important issue. They cause a lot of disruption through arguing with passers-by, robberies& loud noise. This makes it hard for children in the neighbourhood to study. Alcohol causes many health issues 17801	v Govt should control the source of alcohol. Panchayat should run awareness classes for citizens. 17801
2 Access to education for all (incl. primary, secondary, higher, postgrad, adult, professional etc) + 2 14 (17.7%)	i Education is the most important thing in life. For our future we need education for job. Our children get education, but some children do not – especially paniyar 21902 24202	i promotion to encourage all children 21902 government should restart saksharatha. 24202
	ii education is important	ii children not having access study should get assistance
	iii I have not gone to school, so I know how important it is. Without education nothing can be done. I want my children& everybody to have education so they can live well in society 09911 24802 17601	iii Its comparatively good education they get from the govt, I'm not sure how to improve it 124802 we are having difficulty to get them to school too 17601
	iv All are wanting to be educated. Only then will our country be in a high position. 16201	iv govt should give responsibility to govt school teachers to pick up anyone out of school. Not only paniyar, everyone needs access to education 16201
	v There are so many children and adults that are not educated and I feel that only education can give us a good position in the society and it enables us to get proper employment. There is a higher tribal population in 126ressur. The govt primary schools offer meals now so that is encouraging. But when they go for higher education, fees are high so it is difficult for tribal students 10103	v It would be good if govt would give more seats to tribal students so that those who have finished +2 can go for higher studies 10103
4 Supportive friends, family and community network + 2 7 (8.9%)	i we cannot live without help& cooperation. We will need help during emergencies (like health problem or financial problems) so it is very important to maintain good relationships with family& friends 24502	i we should participate in all activities in one neighbourhood and also in the (joint family) it is each person's responsibility.
	ii Support from family& friends is the most important thing for every human. We help each other in times of need as well as happiness	ii
	iii Because I am old, I need support from everyone. Help is needed in every way. It is essential 08101 21502	iii
	iv We all need help from other, and we should all give help to others. Because unless we help we cannot have a good life. When 126ressure increases, other come to help	iv People must develop a helping mentality
	v My husband died of cancer 1 year back. It was difficult for us. The people in the community, neighbours and other family members helped us a lot and I am grateful for that. 09911	v We received many different kinds of help – care for my husband, help in taking him to the hospital, financial assistance. We received help from the panchayat & other family members and also some from the church. 09911
9 Job/ Income security + 2 10 (12.7%)	i No one can live without income from somewhere. So this is the most important issue in the community 18301	i govt should stop giving free rice through ration shops to people who own land as it makes them lazy and must encourage such people to do agriculture
	ii Many people are not having a permean job and they are mainly engaged in agricultural jobs which are decreasing now 03901	ii
	iii not having a permanent job and income, now he is doing coolie labour so there is need of permanent job and income 21501	iii
	iv I want to ensure security and safety in my job. Now I am studying but I am afraid of my future. 06414	iv The community and panchayat should take initiatives to help them engage in different work 06414
	v it is the basic thing required to increase quality of life, and is needed income and job security 22111	v The people should focus on more than one job at the same time to increase income 22111

Insights from the factors

In looking across all the comments from the higher correlated QSorts of the three retained factors, we have insights into the views of the following issues:

Most important: 2 x 2, 3 x 2, 4, 7, 9 x 2, 14 x 3, 15, 20, 22 x 3

Least important: 1, 3, 5, 12, 13 x 3, 15, 17, 18, 21, 23, 24 x 2, 28

In addition, the following nine issues did not feature in the three retained factors' most or least important issues:

6 reduced risk of premature death

8 livelihood diversity

10: able to hire labourers to assist with agriculture

11 freedom of women to be able to work after marriage

16 adequate nutrition

19 able to roam safely

25 improve public transport

26 improve roads and bridges

27 ability to run own enterprise

This does not mean that none of the loaded QSorts did not select any of these as either of their two most or two least important issues, but that it was not common enough among the loading factors. Also, we must note that the three retained factors only represent 59.4% of participants, leaving 40.6% not represented by these factors. We'll come back to this in a short while.

Collated rationales across the three factors

Of the issues highlighted as most or least important by the three retained factors, only two: 3 'adequate drinking water' and 15: adequate shelter appear in at least one factors' most important issues, and one factors least important issue. Exploring the commentary on these two issues further, below we show how collating these into a issue 'profile' can help give a useful insight into the range of views in the community on that issue.

We look first at the respective comments to statement 15 ‘Adequate Shelter’, which was highlighted as one of the most important issues on factors 2 and one of the least important on factor 3. With 122 QSorts loading on factor 2 and 79 QSorts loaded on factor 3, these combined views can be seen to represent the respective viewpoints of 201 participants over a third (37.2%). Afterwards we look at issue 3 ‘Access to drinking water’, which loaded on one of the most important issues on factors 1 and 2, and as one of the least important for factor 3. This means it can be seen as representing the views of all 331 (59.4%) of participants, and all those loaded onto the three retained factors.

Additional relevant statements:

Sometime a relevant statement may not come up in the most correlated, or as one of the five most or least important issues. For example, the following statement which confirms the link between alcoholism and domestic abuse was among QSorts loaded on for factor 2, which did not have the issue 22 alcoholism and drug abuse as one of the five most important issues.

For example: loaded on factor two: 22 Issue of alcoholism and drug abuse 11702

‘My husband uses alcohol. In the early days he would attack me but now this doesn’t happen, though he still uses alcohol’

Conclusion of chapter

In this chapter we have explored retaining of range of factors from two to ten, and discovered that retaining three factors enabled us to represent the most residents’ QSorts. We have then presented how we might interpret these three retained factors, looking at their defining statements, and extracting the relevant statements from the highest loading QSorts, to help us understand the rationale of the residents for the placement of the issues.

Chapter five: Q analysis- the remaining factors – the 41%

The initial three retained factors explored in the previous chapter can be seen to provide a representation of the three largest clusters of shared-viewpoints, collectively accounting for 331 research participants, with 130, 122 and 79 QSorts loading respectively. This leaves 226 research participants not represented among these three initial retained factors. In this chapter we will analyse these unloaded QSort. This is the more innovative part of this study and extends the QSort method approach by taking the unloaded QSorts and re-running the factor analysis to identify further shared viewpoints.

Repeating the factor analysis for the non-loading QSorts

To achieve this, we removing the 331 QSorts that loaded onto the original three factors and re-ran the unloaded 226 QSorts through the correlation analysis via the Stata Q programme with the varimax solution. We explored retaining two to ten factors, and this process was repeated to minimise the number of factors that could capture all but a small number of individual outlier QSorts, i.e. maximise the average number of loaded QSorts onto factors, whilst. Of two solutions produced fifteen different factors. The solution retaining three factors for each of four additional rounds of analysis, removing the loaded QSorts between each round, produced a solution of a total of 15 factors and 12 non-loading individuals.

Factor	Original	1st	2nd	3rd	4th
0	226	119	67	32	12
1	(1) 130	(4) 43	(7) 17	(10) 13	(13) 9
2	(2) 122	(5) 37	(8) 15	(11) 10	(14) 5
3	(3) 79	(6) 27	(9) 20	(12) 12	(15) 6
Total	557	226	119	67	32
Not load	40.6%	52.7%	56.3%	47.8%	37.5%

In table 5.1 below we can see the number of loaded QSorts against each of the three retained factors for each round (row 3-5), with Factor 0 represented the unloaded QSorts. If we look down the second column marked original, we will recognise the three original retained factors, loading with (1) 130, (2) 122 and (3) 79 QSorts each respectively, with 226 remaining unloaded. These 226 unloaded QSorts were then run again through the Stata QMethod programme, retaining three factors with varimax solution and the three resulting factors load with (4) 43, (5) 37 and (6) 27 QSorts respectively, leaving 119 QSorts unloaded. This process was repeated again with these 119 QSorts analysed retaining three factors with (7) 17, (8) 15, and (9) 20 QSorts respectively and leaving 67 unloaded QSorts. This was repeated again, with (10) 13, (11) 10, and (12) 12 loadings with 32 unloaded, and a final round with three retained factors of (13) 9, (14) 5, and (15) 6 loading QSorts respectively and 12 individual QSorts that had not loaded on any of the 15 factors.

On the next page, we explore the characteristics of each of these fifteen shared viewpoints, which with the twelve unloading outlier individuals we argue provide a useful representation of the view of the whole research participant community of 557 individuals.

The defining issues for each of the 12 additional factors

In the table 5.2 we expand Simon Watts' crib sheet method for assisting with interpretation (Watts and Stenner 2006 p150-157) used in the previous chapter, to look at the defining characteristics compared across all fifteen factors. In the penultimate column, we have calculated a simple unweighted mean position for each of the 28 issues across the 15 factors against. In the end column we provide the weighted average which takes into account the number of loaded QSorts for each factor. Reading across the rows, we have then highlight in blue where the position for that issue is at a significantly distance positive or negative - usually more than two places away, from the mean. and in red those that are more than three away.

Each factor representing a set of shared viewpoints is representing in a column number 01-15. We can read across each row 1-28 for each issue that participants sorted by priority and see whether the position that factor has for a particular issue is particularly divergent from the majority rest of the factors. We have calculated the unweighted average across the factors to assist with identifying which factors particularly placed that issue higher or lower than the other factors.

5.2 Mapping of issue position by factor	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	UW	W
# loading	130	122	79	43	37	27	17	15	20	13	10	12	9	5	6	~	~
01. Control school dropouts	0	-2	1	-1	1	-3	2	2	-2	2	-2	-1	-2	2	-2	-0.3	-0.5
02. Access to education for all	1	3	2	0	3	0	-1	0	-2	3	1	-1	1	0	2	0.8	1.4
03. Access to drinking water	3	3	-2	3	1	1	2	-2	2	-2	1	1	-3	0	0	0.5	1.5
04. Supportive friends, family & community network	0	1	2	-1	1	0	0	-1	0	0	0	-2	1	-2	-1	-0.1	0.4
05. Freedom of choice over own life	-2	1	0	0	0	-1	1	2	3	-2	2	-1	1	-2	2	0.3	-0.1
06. Reduced risk of premature death	0	0	0	0	0	0	-1	1	0	-2	3	2	0	2	0	0.3	0.1
07. Improved health	2	1	1	1	0	2	3	0	2	1	0	0	-1	1	0	0.9	1.2
08. Livelihood diversity	-1	-1	0	-2	-2	0	0	0	0	1	-1	3	0	-1	-3	-0.5	-0.7
09. Job/ income security	0	2	2	0	0	3	0	0	0	3	0	3	0	-1	3	1.0	1.1
10. Able to hire labourers to assist with agriculture	1	-1	0	2	-3	1	2	0	0	0	1	0	0	0	1	0.3	0.1
11. Freedom of women to work after marriage	-1	0	1	1	0	-3	0	0	0	2	0	0	-2	0	-2	-0.3	-0.2
12. Ability to continue working in old age	-2	0	0	0	-3	2	1	-1	0	2	0	-3	2	-3	-1	-0.4	-0.6
13. Access to Anganwadi	-2	-2	-2	-1	-2	-2	0	-1	-3	0	0	0	3	0	-2	-0.9	-1.6
14. Special support for physically challenged& elderly	2	2	3	2	2	2	0	1	1	0	0	1	2	1	-3	1.1	1.8
15. Adequate shelter	0	2	-2	-3	2	3	-3	-2	0	0	-1	1	1	-1	-1	-0.3	0.1
16. Adequate nutrition	0	0	-1	0	0	0	1	-1	2	0	1	0	0	3	0	0.3	0.0
17. Freedom to travel	-3	-1	-1	1	-2	-2	-2	1	1	-3	-1	0	-1	-3	0	-1.1	-1.4
18. Access to electricity for all households	0	0	-3	0	0	-2	-2	0	1	0	3	-3	0	3	0	-0.2	-0.5
19. To roam safely - <i>Near consensus</i>	0	0	-1	0	-1	0	-1	1	1	0	0	0	0	0	0	-0.1	-0.2
20. Pollution of the environment	2	-1	1	-1	1	0	3	3	-1	-1	-3	0	3	0	1	0.5	0.5
21. Climate change	0	-2	0	-2	-1	0	0	0	-1	-1	-3	1	-1	0	3	-0.5	-0.7
22. Issue of alcoholism, drug abuse	3	0	3	3	2	1	-3	0	-1	0	-2	0	-1	0	1	0.4	1.4
23. Sports and arts clubs/ recreation	-1	-3	-1	-3	0	-1	0	-3	-1	-1	2	-1	-3	-2	0	-1.2	-1.5
24. Being able to take part in political decision-making	-3	-3	0	-2	0	1	0	-2	-3	-3	0	-2	0	1	0	-1.1	-1.7
25. Improved public transport	0	0	0	0	-1	0	0	3	0	1	-1	0	-2	0	1	0.1	0.0
26. Improved roads and bridges	1	0	0	1	0	0	-2	2	0	-1	2	2	0	2	0	0.5	0.4
27. Ability to run own enterprise	-1	1	0	2	-1	-1	1	0	-2	1	0	2	0	-1	-1	0.0	0.0
28. Toilets and sanitation	1	0	-3	0	3	-1	-1	-3	3	0	-2	-2	2	1	2	0.0	0.0

Interpreting table 5.2

To help interpret table 5.2 we can read across a few of the rows. For row 01. Control school dropouts, we see that whilst the weighted mean is just below zero at -0.3, there is little consensus with four of factors placing it at + 2 and five factors placing at -2. Those stronger positions outnumber the less stronger positions of 0 (one), 1 (two) and -1 (2). However, factor 06 have put the issue of 01. Control school dropouts at -3 making this an identifying for that factor, and this has been coloured blue.

For row 02. Access to education for all, the unweighted mean is higher at 0.8. Scanning down the end column we see that this is the fourth highest unweighted average, behind 14. Special support for physically challenged& elderly with an unweighted mean of 1.1, 09. Job/ income security with an unweighted mean of 1.0, and 07. Improved health with an unweighted mean of 0.9. We see that it is only factor 9 that has placed this issue at a position that is significantly contrary to the mean and more than two positions, and so has been coloured blue.

For row 03. Access to drinking water - we see the unweighted mean is also positive at 0.5, with both factors one and two – with the highest number of Qsort loading placing in among their two most important issues. There are however three factors, including factor three from the original three retained factors, along with factor eight and ten which placed Access to drinking water at position -2, quite significantly contrary to the majority of the other factors – and so these have been coloured blue. In addition, factor thirteen has placed the even further contrary to the unweighted mean, at position -3, and so this has been coloured red to denote a particularly significantly identifying position for that factor.

If we continue to work our way down the table row by row, we can identify where the position of that issue is especially strong in comparison to the rest of the factor and so can be highlighted in blue where reasonably strong, and red where very strong – which shows this issue to be a particularly identifying feature of the specific factor (column). Looking though all 28 issues, we can see that the range when how much a priority is across the factors varies substantially. Ten issues (03, 08, 13, 14, 15, 18, 20, 21, 22, and 28) have their positions with the maximum range possible across the factors: from +3 to -3, with a further nine (01, 02, 05, 06, 10, 11, 12, 23, and 25) having a range of five places: either +3 to -2 or +2 to -3). We can see that for these nineteen issues, there is nowhere near consensus for the issue across the factors. This is the case even when there is only one factor which has placed the issue at the opposite end of the position range. For the most extreme example of this, if we look at row 23: Sports and arts clubs/ recreation – which has means of -1.2/-1.5, we see only factor 11 has placed this issue above 0, at +2. However, we see that there is one shared view point (albeit with just 6 loaded QSorts) that feels this issue is particularly important. Likewise, for issue 24. Being able to take part in political decision-making, with a mean of -1.1/-1.7 two factors (06/14) have placed this at +1 which mean – relative to the other factors, this a defining issue for these two shared viewpoints, even though the level of important is still not so strong.

Issue the invoke less strong view and near consensus

There are then three issues that have no factor placing it at either extreme or +3 or -3, a range of either four places (from +2 to -2) or three +1 to -2 or +2 to -1). These are issues 04, 26, 27 (Supportive friends, family & community network, Improved roads and bridges, and, ability to run own enterprise. There is only one issue: 19. To roam safely **highlighted in yellow** - that does not feature in any of the factors identifying issues. We see that with an unweighted average of -0.1 and a range of only +1 to -1 we can say that this is a near consensus statement, that all factors agreed that it was neither especially important or especially unimportant an issue. Whilst the previous three issue which were not in a stronger position on factor (04, 26, and 27) do not has as clear a consensus as 19, we could club these together as 'towards consensus', or at least lacking stronger views for any factor.

The defining issues for each factor

Now moving to look at each of the factors (columns) we can highlight the standout issues for each factor which will enable us to draw a insight into the priorities of the individuals who loaded onto it. To do this, we can first look across the rows to identify the stand out issue, and then look down the column of one factor to see all the issues that that stand out for that factor. An particularly stark example is factor 15. If we first look across row 14, whilst Special support for physically challenged& elderly has the highest unweighted mean position at 1.1, with all other factors positioning it between 0 and +3, factor 15 is the only one which places it in a negative position, and at that the most extreme negative of -3. Conversely, looking down the column of the same factor 15, we see issue 21 Climate change is placed at the most extreme positive position of +3, whilst across the factors this issue of climate change has the joint forth most negative unweighted mean at -0.5 along with livelihood diversity and behind 23. Sports and arts clubs/ recreation with -1.2, 24. Being able to take part in political decision-making with -1.1, and 13. Access to Anganwadi (-0.9)

On the following table 5.2, we have rotated the matrix to list the factors 1-15 to then highlight in the columns the strongest defining positive and negative issues for that factor, typically those highlighted in red is the factor has any, and then the other defining positive and negative issues, typically those highlighted in blue. You will see that for the first two factors, they have fewer identifying issues when compared across all fifteen factors, and this is impact a function of them driving the average by representing such a large proportion of the research participant population, and that we tend to understand that for most issues, the majority of people with have not so strong views.

5.2 Defining issues by factor	Strongest defining issues +	Strongest defining issues -	Other defining issues +	Other defining issues -
Factor & name				
01 Health and environment				Freedom of choice over own life
02 Lifelong stability through state support			Adequate shelter	
03 Community& home focused	Supportive friends, family& community network		Special support for physically challenged& elderly	Access to drinking water. Access to electricity for all households
04 Home secure aspiring entrepreneur	Ability to run own enterprise		Freedom to travel	Adequate shelter
05 Sanitation focused, none-agriculture	Toilets and sanitation	Able to hire labourers to assist with agriculture		
06 Home and job insecure – political advocate	Adequate shelter	The freedom of women to work after marriage	Ability to continue working in old age. Being able to take part in political decision-making	Control school dropouts
07 Home secure, health& environment focused – alcoholism denying		Issue of alcoholism, drug abuse	Pollution of the environment Improved health	Adequate shelter Improved roads and bridges
08 Public transport& travel focused, water& sanitation secure	Improved public transport		Pollution of the environment Freedom to travel	Access to drinking water Toilets and sanitation
09 Freedom focused	Freedom of choice over own life		Freedom to travel	Access to education for all. Access to Anganwadi. Ability to run own enterprise
10 Lifelong job equity	The freedom of women to work after marriage	Reduced risk of premature death	Job/ income security Access to drinking water	Freedom of choice over own life Access to drinking water
11 Sport focused and electricity insecure	Sports& arts clubs/ recreation Access to electricity for all households	Pollution of the environment	Reduced risk of premature death	Issue of alcoholism, drug abuse
12 Income diversity & security focused – electricity secure	Livelihood diversity		Job/ income security Ability to run own enterprise	Access to electricity for all households
13 Water secure, Anganwadi accessing	Access to Anganwadi	Access to drinking water	Ability to continue working in old age Pollution of the environment	Improved public transport
14 Basic needs insecure, electricity & nutrition political advocate	Access to electricity for all households		Adequate nutrition Being able to take part in political decision-making	Freedom of choice over own life Job/ income security
15 Climate activist	Climate change	Special support for physically challenged& elderly	Job/ income security	Livelihood diversity

In the first column, alongside the factor number – we have provided given an indicative name based primarily on the strongest defining positive issue die the factor. You will recognise the names allocated the first three factors: 01 Health and environment, 02 Lifelong stability through state support, and, Community& home focused. Therefore, based on the stand out defining issues identified in table 5.1 and drawn out in table 5.2 we have similarly named/ classified the further twelve factors.

Below we provide an initial summary profile of each of the additional newly identified twelve factors, based on the data in these two proceeding tables, included their allocated name, and the number of research participates that loaded onto the factor. We will then look further at a couple of the factors and the rationales provided by those who loaded on the factor.

04 Home secure aspiring entrepreneur: (43) This factor represents those who are especially keen to be able to run their own business. They are also reasonably more interest in the freedom to travel, both of which are aspirational values, and the issue of adequate shelter is less of a concern for them.

05 Sanitation focused, none-agricultural: (37) This factor represents those who are concerned around toilets and sanitation, placing it at +3 against an unweighted and weighted average of 0.0. They are also particularly less concerned with the ability to hire labourers to assist with agriculture then all the other factors, placing this issue at -3 against an all-factor non-weighted average of +0.3. This is the first time in the table we see the red highlight where the issue is especially strong and contrary to the majority of the rest of the factors. Only one other factors (2) has placed this issues in the negative third of the QSort at -1 albeit representing a large number of research participants.

06 Home and job insecure – political advocate: (27) This factor represents those who are most concerned over adequate shelter (in contrast to factor 4 above) – and placed at +3 whilst the unweighted mean is -0.3. This is the second time in the table we see the red highlight where the issue is especially strong and contrary to the majority of the rest of the factors. They are also more interested in being able to take part in political decision-making. They are also least concerned about the freedom of women to work after marriage and of the issue of controlling school dropouts.

07 Home secure, health& environment focused – alcoholism denying: (17) This factor represents those who are most concerned by the pollution of the environment and of improved health, whilst the issues of alcoholism and drug abuse are much less important to them than in all other factors (being placed at -3 whilst averaging +0.4 for the unweighted mean across all fifteen factors, and is placed as +3 in three of the four highest loading factors – representing 252 (45%) of all research participants.

08 Public transport& travel focused - water and sanitation secure: (15) This factor represents those who are especially concerned over the need for improved public transport, which at +3 is especially stark in comparison to all the other factors the majority of which place the issue between +1 and -1 including nine who placed it among 0. It would almost have been another near consensus issue, without this factor. They are also concerned about pollution of the environment and the freedom to travel, whilst they have less concern over access to drinking water, and toilets and sanitation.

09 Freedom focused: (20) This factor represents those who are especially more interested in their Freedom of choice over own life than all other factors, placing this at +3, as is freedom to travel at +1 compared to an unweighted mean of -1.1 and a weighted mean on -1.4. Toilets and sanitation also relatively more important at +3 compared to both an unweighted and weighed mean of 0.0. Being placed at -2, this cluster has the lowest ranking for the importance of access to education – which has an unweighted mean of 0.8 and a weighted mean of 1.4, access to the anganwadi (nursery) is also especially not important at -3 to lowest of any factor, as is the ability to run own enterprise at -2 against an unweighted and weighted mean of 0.0.

10 Lifelong job equity: (13) This factor represents those who are especially more concerned with the freedom of women to work after marriage, placed are +3 compared to an unweighted mean of -0.3 and a weighted mean of -0.2. They are also more concerned about Job/ income security (+3), the ability to continue working in old age (+2) and livelihood diversity (+1), school drops outs (+2), than most of the other factors. They are least concerned with their freedom of choice over own life (-2) and reduced risk of premature death (-2).

11 Sport focused and electricity insecure: (10) This factor represents those who are especially more concerned with sports and arts clubs/ recreation (+2 against means of -1.2/-1.5), and access to electricity for all households (+3 against means of -0.2/-0.5), and concern with reduced risk of premature death (+3 against means of 0.3/0.1). They are least concerned with pollution of the environment (-3 against means of 0.5), climate change -3 against -0.5/-0.7 and issue of alcoholism, drug abuse (-2 against 0.4/1.4)

12 Income diversity & security focused – electricity secure: (12) This factor represents those who are especially concerned with livelihood diversity (+3 against means of -0.5/-0.7, job security (+2) and ability to run own enterprise (+2 against means of 0.0), whilst being least concerned with access to electricity for all households (-3 against means of -0.2 and -0.5), and supportive friends, family and community network (-2 against means of -0.1 and 0.4). It seems that around issue of employment, factor 12 would find some solidarity with factor 10.

13 Water secure, Anganwadi accessing: (9) This factor represents those who are most concerned with access to Anganwadhi (nursery) (+3 against a mean of -0.9 and -1.6), pollution of the environment (+3 against means of 0.5) and the ability to continue working in old age (+2 against -0.4 and -0.6), whilst being least concerned with access to drinking water (-3 against means of +0.5 and +1.5), improved health (-1 against +0.9/ +1.2) and improved public transport (-2 against means of +0.1 and 0.0)

14 Basic needs insecure, electricity & nutrition political advocate: (5) This factor represents those who are especially concerned about adequate nutrition (+3 against +0.3/ 0.0) and access to electricity for all households (+3 against -0.2/-0.5), being able to take part in political decision-making (+1 against -1.1/-1.7) and control of school drop outs (+2 against -0.3/-0.5), with less concern around Supportive friends, family& community network (-2 against) and freedom of choice over own life (-2)

15 Climate activist: (6) This factor represents those who are most concerned about Climate change (+3 against means of -0.5/-0.7), job/ income security (+3 against +1/+1.1) and least concerned with special support for physically challenged& elderly (-3 against 1.1/1.8) and livelihood diversity (-3 against -0.5/-0.7)

Coalition formation

Each of these 15 factors provides a wealth of useful information for local public discourse and policy. Many of them map directly on to priority areas for the panchayat and the biannual community meeting. However, as you will have seen from the previous chapter, there is a wealth in information available on each of the defining issues for each factor once we start to look at the rationales the residents who loaded onto the factor gave for placing the start out issues as especially important or especially not important. We unfortunately don't have time to go into them in detail here as I've run out of time, though if we are able to expand during corrections, this would be one area we'd be keen to do more work on

We can imagine how a we could feed these insight back to a citizen committee of interested residents to engage with each of the topics. One advantage of the factors exploring the full placement of all the issues, is that those who load on the same factor are much more likely to hold similar views on different issues, and would be able to form a coalition and explore how they may advocate for their particular shared priorities. At the present, the only collectives that tend to exist in this form are political parties, often very centrally organised and ideologically driven. Whilst we may find some of the factors may well on to particular party priorities and values, the majority will not, and so hold the potential for the formation of wholly new collectives around shared local priorities.

As a collective, the burden of having to present an argument for your position shift from the individual to have to speak up in a community meeting, to a collective enabling much more inclusive democratic discourse to take place, rather than just 'the loudest voices'. Those who have traditionally held authority, or those who have been put forward by a particular party to represent a particular position.

Non-loading individual QSorts

Once all the researched participants that loaded on to these fifteen factors are taken into account, we were left with 12 individuals that did not load onto any factor.

Individuals	01	02	03	04	05	06	07	08	09	10	11	12	w+ ~
01. Control school dropouts	2	-3	0	0	2	2	0	0	0	1	-2	0	-0.5
02. Access to education for all	-1	3	-1	2	0	0	1	1	-2	3	1	3	1.4
03. Access to drinking water	0	0	2	3	1	0	0	-1	1	-1	0	-1	1.5
04. Supportive friends, family& community network	2	2	0	2	0	-3	-2	3	3	1	-2	3	0.4
05. Freedom of choice over own life	0	1	0	0	2	0	2	-3	-3	0	3	1	-0.1
06. Reduced risk of premature death	0	-2	0	-2	0	-1	1	0	1	0	-3	-1	0.1
07. Improved health	0	0	-3	-1	0	0	3	1	0	0	2	-3	1.2
08. Livelihood diversity	3	2	1	0	0	-2	-1	0	0	-2	0	0	-0.7
09. Job/ income security	-1	0	-2	0	-2	-1	0	0	-2	2	3	0	1.1
10. Able to hire labourers to assist with agriculture	-3	0	2	-3	0	0	0	0	-1	0	1	0	0.1
11. The freedom of women to work after marriage	1	2	3	-3	3	1	-2	0	0	0	0	-1	-0.2
12. Ability to continue working in old age	1	0	2	-1	-2	1	-1	1	2	0	2	-2	-0.6
13. Access to Anganwadi	1	-3	-3	-1	0	0	1	-2	-1	-1	-1	-1	-1.6
14. Special support for physically challenged& elderly	1	-2	-2	1	0	-1	-1	0	2	-1	0	-3	1.8
15. Adequate shelter	3	-2	1	3	-2	2	0	1	0	1	0	1	0.1
16. Adequate nutrition	-2	-1	-2	0	0	0	2	2	0	2	-2	2	0.0
17. Freedom to travel	-1	0	0	0	-1	-2	-3	-2	-2	-2	-3	0	-1.4
18. Access to electricity for all households	2	1	-1	1	3	-3	0	0	0	-1	0	2	-0.5
19. To roam safely	-2	-1	0	-2	-1	0	0	0	2	-3	0	0	-0.2
20. Pollution of the environment	0	0	1	1	1	0	0	2	1	0	0	1	0.5
21. Climate change	0	3	0	2	-1	1	-3	2	-1	0	1	0	-0.7
22. Issue of alcoholism, drug abuse	0	-1	0	0	-3	3	-2	-1	-1	3	2	0	1.4
23. Sports and arts clubs/ recreation	-3	-1	1	-2	-1	-2	3	-1	0	0	1	0	-1.5
24. Being able to take part in political decision-making	0	1	-1	0	-3	3	1	-3	3	-3	0	0	-1.7
25. Improved public transport	0	0	0	-1	0	-1	0	-1	0	1	-1	2	0.0
26. Improved roads and bridges	-2	0	-1	1	1	0	2	-2	0	-2	0	-2	0.4
27. Ability to run own enterprise	0	1	3	0	2	1	-1	0	1	0	-1	1	0.0
28. Toilets and sanitation	-1	0	0	0	1	2	0	3	-3	2	-1	-2	0.0

We see from the table above that, as would be expected, these twelve non-loading individuals are more likely to have more extreme positions, particularly at the other end of the spectrum of importance than the factors, which – as a reduction technique are subject to an averaging effect across the loaded QSorts, which is not the case for these individuals. So, if we look across all twelve individuals, we'll see that the majority – with the exception of #8 and #10 have the placement of at least one and for many two or three issue highlighted in red – indicating it is three places in the opposite direction to the weighted mean for the whole population.

To highlight a few stand out examples,

- we see that unloaded individual #2 has climate change as one of their two most important issues – placed at +3, against an all-population weighted mean of -0.7
- whilst unloaded individual #3 has three issues highlighted in red:
 - Improved health placed at -3 against an all-population weighted mean of -1.2
 - The freedom of women to work after marriage at +3 against an all-population weighted mean of -0.2
 - Ability to run own enterprise

Chapter six: Discussion and conclusion

Introduction

Our final chapter is split into two sections. The first part explores the findings and implications of our case study analysis, examining what insights can be drawn from the innovative use of our census-approach to using QMethod analysis to aggregate individual judgements of the importance of locally salient issues to explore local priorities. We consider whether using such an approach to support inclusive deliberative exercises can help with the increased participation of the adult population across a community in priority setting and informing continued public deliberation around values and norms.

We discuss how undertaking a QSort exercise facilitates a '*deliberation within*' process for each participant and we propose the idea of '*deliberation without*' to conceptualise how the subsequent factor analysis acts as an automated deliberative tool in comparing individual QSorts across the community. We argue that this *deliberation without*, enables the realisation of previously unknown shared viewpoints which could subsequently inform coalition formation and consensus building, especially around contentious and changing priorities where values are being challenged overtime. We show how communities could use this approach to complement both the formal institutions of representative democratic as well as existing deliberative forums, enriching both the individual's understanding of their priorities across a wide range of locally salient issues, as well as the collective understanding and shared view points across the community. This process can subsequently enable development activities to truly reflect '*the kind of lives people do value*' as advocated for by Sen through both facilitating decisions around values and priorities as well as enhancing their participatory capabilities to influence public policy.

In the second and concluding section, we round up the thesis by highlighting where additional analysis and engagement with this approach could further enhance our understanding of how individual and collective priorities and value are not static are constantly being challenged and deliberated and how the method can help capture this change over time. Alongside informing existing processes of priority setting such as panchayat/local body development plans and similar local administration-led development initiatives, they can also inform how we measure and discuss development at the local level, through the production of more locally informed human development reports and the selection of more nuanced and appropriate measures to reflect the lives and priorities of those they seek to represent. To facilitate such engagement at the community level, we propose the development of an open-source app-based tool which would enable local community organisations and local councils to easily undertake such an exercise periodically.

Findings from the case study

Examples of where factors have highlighted shared outlier viewpoints

If we look at issue 5 and 11 – both the most freedom related of the issues, the former being the freedom of choice over life, and the latter being the freedom of women to work after marriage.

Factor 11 gives the most extreme least important view for both climate change and protection of the environment, whilst also having an outlier priority of Access to electricity for all households. This could help show how considerations for planet and environment are secondary to basic needs and infrastructure. Whilst we see the six people who loaded on factor 15 have placed climate change as a top priority, whilst being an outlier on placing special support for physically challenged& elderly as least important. Likewise the nine people who loaded onto factor #13 are an outlier on both not having an issue with access to drinking water but having a priority of access to a Anganwadi

Mapping the factor loadings on to Nussbaum's core capabilities list

In the table below we map the factor loadings (reproduced on the following page) – with the number of loaded QSorts in brackets, and individual non-loading QSorts (#) onto Nussbaum's list of core capabilities. This enable us to highlight the number of QSorts accounted for either as usually strongly positive or usually strongly negative about how important that capability is to the individual, and to calculate a crude (none weighted) ratio as to how many people loaded on a factor that prioritised this issue, and how many loaded on a factor that had this issue as less important. We have also colour coded the issues against the areas of public policy identified on the previous page: **Employment** **Freedom** **Infrastructure/Services** and **Community**.

Limitations:

Below we discuss some of the methodological limitations of the approach taken in our study, as suggest some possible further research that could look to mitigate these.

How recognisable are extracted factors to the participants who loaded highly on them?

To understand whether the factors truly represent shared viewpoint within the community, we'd need to investigate whether each individual would recognise the factor as close enough to representing their own individual view point. As a robustness check, the correlation cut off could be adjusted within the varimax programme to increase or decrease the required correlation to load on the factor. We could then test what level of agreement there is within the study participants the the factor they have loaded onto does in fact represent their views to a recognisably close level.

Voicing the voiceless

Voices of children and others unable to complete a QSort, such as those that have learning disability or dementia. In the current method, taking a lead from electoral law. Some alternative approaches could be consider, such as including youth 14-17 in the QSort activity, or giving parents QSorts additional weighting. Voice of the most marginalised – paniyar, though there was clear indication from other community members social issues being levelled at them, such as school drop outs and protection of the environment.

Discussion of value vs priority

Whilst a number of participants were keen to emphasise that the value of women's ability to work after marriage was one of their greatest values, if they did not personally suffer from restrictions, they were often torn as to whether to bit has one of the highest priorities, reflecting how important they felt it was for society, or lowest for them

Strengths:

One key advantage of a census approach to capturing subjective viewpoints, is that whilst QMethodologist may argue that you would capture the key shared view points on much fewer respondents, say 57 rather than 557, getting all agreeing adults to undertake the QSort exercise means unlike a classic QStudy, you will also be able to talk about the demographics of the respondents who load onto each factor. In classic QMethodology, as the participants can't be seen as representative of the wider population, and it is the statements (or other stimuli) that should be representative of possible views, with the census approach you'll be able to see the gender, community, neighbourhood or any other demographic split across the shared viewpoints. This can be especially useful for coalition building.

For example, in our field study, on the issue of the *freedom of women to work after marriage* – whilst of the 25 residents who placed and one of their two most important and least important issues, the gender split was 21 female to 4 male, and of the 31 residents one of their two least important, 12 female and 19 male. However, of the 13 people who loaded onto factor 10 – the shared viewpoint which places the *freedom of women to work after marriage* at +2 we will see the gender representation to be – and further analysis could be done, for example by community/ religion.

Proposing the idea of ‘Deliberation without’

Robert Goodin (2000) has called this process ‘deliberation within’, arguing that much of the discursive arguments put forward within deliberative democratic debate (cf Dryzek, 1990) Also goes on inside the head of each of us as we constantly consider and reconsider our values and priorities. Undertaking a QSort is a way of getting citizens to express their ‘deliberations within’ in a way that they can be factor analysed among themselves to identify shared viewpoints. This bring out of the previously internal deliberations, is a process e could call ‘*deliberation without*’ – since it becomes outside of the body - without in this sense – such as without (outside) the city wall. It is also without, because whilst the individuals revealed deliberations are now brought into contact with others through the correlation and factor analysis, it is only after the factor have been revealed that any coalition forming can take place. We argue that this process of factor analysis is a type of deliberation with the correlation analysis of each individuals QSort, a type of ‘deliberation without’

‘one of the strongest arguments in favor [sic] of political freedom lies precisely in the opportunity it gives citizens to discuss and debate - and to participate in the selection of - values in the choice of priorities’ (Sen 1999 p. 30)

Conclusion

The method was grounded in the lived experiences of the local community, drawing from their community discussions in the grama sabha over the previous two years, as well as reflecting the diversity and hierarchies within the community with inputs sought from the ward rep, representatives of the three religious' communities, and other professionals. The method has strength over just exploring the research participants two most important and two least important issues, not restricted to these four issues and is that the factors enable the identification of issues not on the most extreme but are – however, the captured views are only from the most extreme, unless further follow up interviews would be held.

Our innovative method compliments the work to operationalise the capabilities approach by scholars such as Alkire, Anand and Coast, as it enables a real expression of value preference from all adults within an effected community – which provides a more robust and inclusive snapshot of preferences than the focus groups of randomly selected adults that Kinghorn et al (2021) use to capture capability preferences.

This approach enables all voice to be heard equally, and to inform the collective understanding of priorities across the community. Given discriminatory social structures of exclusion, hierarchy and oppression prevalent in all communities⁴⁷ Whilst Habermas (1984) argues that only transparent public deliberation can claim moral truth, our approach to deliberative democracy enables the focus to shift from the burden of argument from the individual to the collective shared viewpoint. This would enable fluid affiliations based on shared positions, often with multiple arguments rather than political affiliations being based on ideology or community, as is most often the case.

⁴⁷ including and not restricted to: patriarchy, sexism and misogyny, ableism, ageism, classism and elitism, casteism, racism and colourism, homophobia and transphobia, xenophobia communalism, anti-semitism and islamophobia to name a few.

Capturing value-based community discourse

This method however is further able to capture values held within the community not usually captured in HDRs such as social issues of alcoholism, and the ability of women to work after marriage. This gives a more nuanced understanding of values and priorities. This approach has the ability to capture change in values over time and which will inform wider debates on human development, inclusion, culture and diversity.

Policy implications

We also consider policy implications of this approach and method. One policy implication is the importance of local ownership of their development narrative and priorities. Within the more participatory institutions of Kerala, with their inclusive gram sabha meetings and devolved administration from which other places can draw inspiration for institutional development. There is a potential to incorporate plurality and diversity of views within public policy and deliberative discourse. This method could easily be taken up by local community leaders and organisations, especially with the development of an open-source tool to undertake the technical analysis. This could take the form of an app

The act of participants community members undertaking individual QSort exercises provides a fantastic and powerful example of Goodin's 'deliberation within' as they make ranking decisions as to what issues are most and least important. However, we could argue that In contrast to deliberation within' – which is undertaken solely in the minds of individual community members, the advantage of Deliberation 'without' is that all the different subjective views within the community are compared against each other, without

Alongside 'deliberation within, the QSorts 'talk' to each other during the factor analysis to identify common priorities.

Change in priorities/ values over time

Changes since the fieldwork, there have been a number of significant incidents that will have influenced public discourse on a number of areas.

- In 2018 there were significant floods in Kerala, including in Kottatara.
And whilst ward three was not heavily damaged, there was significant disruption and infrastructure damage for quite sometime
- Later in 2018, the supreme court of India ruled that exclusion of women of menstruation age from Sabarimala temple was unlawful and against the constitution, sparking considerable debate around access and religious festival.
- In 2022, a 12 girl was killed by a stray dogs in Kerala, raising awareness of the issues of stray dogs

Contributions to deliberative democracy

In this we have shown this to be a viable approach to capturing local priorities and values to help in information discussions of human development at the local level. This can help inform both local public policy as well as local deliberations of the values within a community, and change in value over time. At one level – this approach confirms priorities which are highlighted via the more traditional human development approaches, such as access to drinking water and education for all.

Decline of HDRs in India and abroad.

Since the closure of the federal planning commission after the BJP came to power in 2014, there has been a marked reduction in the development of further Human Development Reports across India. Whilst they continue to be important usually nationally focused documents for many of the countries and regions in the global south, the adoption of the Sustainable Development Goals in 2015 and the move to include greater issues of sustainability, has seen the Human Development framework as espoused by UNDP and as developed by the Human Development Report office founding director Mahbub ul Haq in 1990.

Discussion of fieldwork the findings

Having exposed the limited way local human development reports or activities reflect localised issues that affect a community, with little to no consideration or assessment of '*what people value*' and their priorities are for development. Through the selection of a field site which has had a local HDR and a diverse population, we have shown that through a census approach, we can capture shared priorities and individual preferences across a community using the tools of QMethodology. Our innovative census-approach to the QStudy enabled us to move beyond simply grouping people by their most or least important issues as shown in chapter four, and we were able to draw out fifteen shared viewpoints which provides greater insights into where coalition formation and consensus building could take place across the community to look at addressing shared concerns and priorities.

First, it's helpful to do a further categorisation the issues the research participants, the adult citizens of ward three, were asked to sort into broad areas of public policy. Below we have classified these into four groups: employment related, freedom related, infrastructure/ services related, and community. These groups are not exclusive or exhaustive and just give an indication as to the type of possible public policy response. For example, one of the issues: '11. *The freedom of women to work after marriage*' and 12 *Ability to continue working in old age* are in both the list for employment related issues and the list for freedom related issues, and 23. *Sports and arts clubs/ recreation* is placed in both Infrastructure/Services and community.

From this unweighted ranking, we and take a look at which issues are highlighted more often in factors placing it as high priority than factors that place them as low priority. We can compare this against the Below we present the ranking of Nussbaum's core capability list against the ratio of the number of loaded QSorts and individual non-loaded QSorts placing the issues that correspond with the capability area as high priority against those who place it as low priority.

Ranking of priority of Nussbaum's core capabilities list	
5 Emotions.	10.7
4Senses, Imagination, &Thought.	4.6
6Practical Reason.	4.6
2Bodily Health.	3.4
8 Other Species	2.4
7b Affiliation Self-respect& non-humiliation	2.0
3 Bodily Integrity.	2.0
10b Control over one's Environment: Material.	1.6
1 Life.	0.7
7a Affiliation: Being able to live with others	0.5
9 Play.	0.1
10a Control over one's Environment: Political.	0.1

Development of an app for community and local council use

To enable local community organisations, elected representatives and local councils to easily undertake such an exercise periodically, we propose the development of a free at use open-source app-based tool. The app would include all the front facing, user friendly tools for inputting QStatements, undertaking QSort and capturing participants demographics and relational interviews. This would then have in the background, all the programming to undertake the factor analysis, enabling the non-specialist to produce detailed insights of local priorities within their community, and to help inform public deliberation and policy.

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Appendix A – Q Sample in Malayalam

1. സ്കൂളുകളിൽ നിന്നുമുള്ള കൊഴിഞ്ഞു പോകൽ തടയുക	8. വ്യത്യസ്തമായ വരുമാനമാർഗ്ഗങ്ങൾ (ഡ്രൈവർ)
2. എല്ലാവർക്കും വിദ്യാഭ്യാസ ലഭ്യത (eg. പ്രാഥമികം, സെക്കന്ററി, കോളേജ്, ഉന്നത വിദ്യാഭ്യാസം, പോസ്റ്റ് ഗ്രാജുവേറ്റ്. പ്രായ പൂർത്തിയായവർക്കുള്ള വിദ്യാഭ്യാസം പ്രൊഫഷണൽ ട്രൈനിംഗ്.)	9. തൊഴിലിലും വരുമാനത്തിലുമുള്ള ഉറപ്പ്/സുരക്ഷിതത്വം
3. കുടിവെള്ള ലഭ്യത	10. കാർഷിക മേഖലയിൽ കൂടുതൽ തൊഴിലാളികളെ ലഭ്യമാക്കുക
4. സുഹൃത്തുക്കളിൽ നിന്നും കുടുംബങ്ങളിൽ നിന്നും സമൂഹത്തിൽ നിന്നുമുള്ള സഹായ സഹകരണം	11. വിവാഹത്തിനു ശേഷവും ജോലി ചെയ്യുവാൻ സ്ത്രീകൾക്കുള്ള സാതന്ത്ര്യം
5. വ്യക്തി സാതന്ത്ര്യം (സ്വന്തം ജീവിതത്തിൽ തീരുമാനങ്ങൾ എടുക്കാനുള്ള സാതന്ത്ര്യം)	12. പ്രായമായാലും അവരവരുടെ താൽപര്യം അനുസരിച്ച് ജോലി ചെയ്യാനുള്ള സാതന്ത്ര്യം
6. അകാല മരണനിരക്ക് നിയന്ത്രിക്കുക. (റോഡ് അപകടങ്ങൾ, അസുഖങ്ങൾ വഴി)	13. അംഗനവാടികളുടെ ഉപയോഗം (eg. അംഗനവാടികളുടെ സമയം കൂട്ടുക ഗതാഗത സൗകര്യം)
7. മെച്ചപ്പെട്ട ആരോഗ്യ നിലവാരം	14. ശാരീരികമായി തളർന്നിട്ടുള്ളവർക്ക് വയോജനങ്ങൾക്കുമുള്ള സഹായം

15. അനുയോജ്യമായ വാസസ്ഥലം	22. ലഹരി പദാർത്ഥങ്ങളുടെ ഉപയോഗം, മദ്യപാനം സംബന്ധിച്ച പ്രശ്നങ്ങൾ
16. ആവശ്യത്തിനുള്ള പോഷകാഹാര ലഭ്യത	23. കലാ-കായിക സംഘങ്ങൾ
17. സഞ്ചരിക്കുവാനുള്ള സ്വാതന്ത്ര്യം	24. രാഷ്ട്രീയ തീരുമാനങ്ങൾ എടുക്കുന്നതിൽ പങ്കാളിയാവുക
18. എല്ലാവീടുകളിലും വൈദ്യുതി ലഭ്യമാക്കുക.	25. പൊതുഗതാഗത സൗകര്യങ്ങൾ മെച്ചപ്പെടുത്തുക
19. സുരക്ഷിതമായിട്ടുള്ള സഞ്ചാര സ്വാതന്ത്ര്യം (eg. വഴിവിളക്കുകൾ)	26. റോഡുകളും പാലങ്ങളും മെച്ചപ്പെടുത്തുക
20. പരിസ്ഥിതി മലിനീകരണം (മാലിന്യ സംസ്കരണം ശരിയായ രീതിയിൽ)	27. സ്വയം തൊഴിലിൽ ഏർപ്പെടുന്നതിനുള്ള സ്വാതന്ത്ര്യം (SMME, കുടുംബശ്രീ)
21. കാലാവസ്ഥാ വ്യതിയാനം	28. ടോയ്ലറ്റ് സൗകര്യവും ശുചിത്വസൗകര്യവും സംസ്കരണവും

Appendix B QSort training with the 10 research assistants



Appendix C Cover Sheet

House number III ____ Number of people ____ Number of adults ____ Completed YES (please circle when **ALL** willing adults have done a sort)

Research assistant

Date ____ / ____ / ____ Time

Completed individual?	1 # (ordered by age)	2 Family relation (eg mother, son)	3 Gender f/m/3 rd	4 Age	5 Highest school year	6 Any health issues	7 Member of community org? (eg SHG, political party etc)	8 Employment	9 Best time?	10 notes
	1 Adult/ Child									
	2 Adult/ Child									
	3 Adult/ Child									
	4 Adult/ Child									
	5 Adult/ Child									
	6 Adult/ Child									
	7 Adult/ Child									
	8 Adult/ Child									
	9 Adult/ Child									
	10 Adult/ Child									
	11 Adult/ Child									
	12 Adult/ Child									

Community (please circle): Kurichya Paniyar Hindu other ____ Muslim Christian RC Christian other ____ Other (please specify) ____

House number III _____ Person _____

Most
Important

Least
Important

Conversation on rationale for placing the two least important and two most important issues

Why you placed the two least important issues:

-3 (1) #

-3 (2) #

Why you placed the two most important issues:

Including – who does it affect and do you have any suggestions?

+3 (1) #

+3 (2) #

Who does it affect:

Suggestions for improvement:

Appendix E Mapping the factors an non-loading individuals against Nussbaum's core capabilities list

Nussbaum's proposed core capabilities list					+ factor & (#loaded QSorts) + individual non-loaded OSorts	- factor & (#loaded QSorts) + individual non-loaded OSorts	+ #	- #	/
6.	Life.	10/14	0.7	6	11 (10)	10 (13) #11	10	14	0.7
7.	Bodily Health.	47/14	3.4	7	7 (17) + #7	13 (9) + #3 #12	18	11	1.6
				16	9(20) 14 (5) #7 #8 #10 #12	#1, #3 #11	29	3	9.7
8.	Bodily Integrity.	340/172	2.0	17	4(43) 8(15) 9(20) #5	1 (130). 10(13)	69	143	0.5
				19	consensus & #9	consensus #10	1	1	1.0
				22	1 (130) 3 (79) 4(43) #6 #10	7(17) #5#7	254	19	13.4
				25	8(15) #12	13 (9)	16	9	1.8
9.	Senses, Imagination, & Thought.			1	7(17) 8(15) 10(13) 14(5)	6 (27) #2	50	28	1.8
				2	2 (122) 5(37) 10(13) #2#10#12	9(20) #9	175	21	8.3
				13	13(9)	9(20) #2 #3	9	22	0.4
6.	Practical Reason.	234/71	4.6	2	2 (122) 5(37) 10(13) #2#10#12	9(20) #9	175	21	8.3
				22	1 (130) 3 (79) 4(43) #6 #10	7(17) #5	254	19	13.4
5	Emotions.	429/40	10.7						
7.	Affiliation.								
c.	Being able to live with others	263/523	0.5	4	3 (79) #8#9#12	12 (12) 14 (5) #6	82	18	4.6
				14	3(79)	15(6) #12	79	7	11.3
				23	11 (10) #7	2(122) 4(43) 8(15) 13(9) #1	11	190	0.1
				24	6(27) 14(5) #6 #9	1(130) 2(122) 9(20) 10(13) #5 #8 #10	34	288	0.1
				27	4(43) 12(12) #3 #5	9(20)	57	20	2.9
d.	Self-respect& non-humiliation	516/258	2.0	2	2 (122) 5(37) 10(13) #2#10#12	9(20) #9	175	21	8.3
				5	9(20) #11	1 (130) 10(13) 14(5) #8 #9	21	150	0.1
				11	10(13) #3 #5	10(13) #4	15	14	1.1
				12	6(27) 10(13) 13(9) #3 #9	5(37) 12(12) 14(5)	51	54	0.9
				22	1 (130) 3 (79) 4(43) #6 #10	7(17) #5	254	19	13.4
8	Other Species	47/20	2.4	20	7(17) 8(15) 13(9)	11(10)	41	10	4.1
				21	15(6)	11(10)	6	10	0.6
9	Play.	11/190	0.1	23	11 (10) #7	2(122) 4(43) 8(15) 13(9) #1	11	190	0.1
10	Control over one's Environment								
a.	Political.	34/288	0.1	24	6(27) 14(5) #6 #9	1(130) 2(122) 9(20) 10(13) #5 #8 #10	34	288	0.1
b.	Material.	841/525	1.6	3	1(130) 2(122) 4(43) #4	3(79) 8(15) 10(13) 13(9)	296	116	2.6
				8	12(12) #1 #2	15(6)	14	6	2.3
				9	6(27) 10(13) 12(12) 15(6) #11	14(5) #3 #5 #9	59	8	7.4
				10	4(43)	5(37) #1 #4	43	39	1.1
				11	10(13) #3 #5	10(13) #4	15	14	1.1
				12	6(27) 10(13) 13(9) #3 #9	5(37) 12(12) 14(5)	51	54	0.9
				15	2(122) 5(37) 6(27) #1 #4 #6	4(43) 7(17)	189	60	3.2
				18	11(10) 14(5) #5	3(79) 12(12) #6	16	92	0.2
				26	8(15) 11(10) 12(12) 14(5) #7	7(17) #1 #8 #10 #12	43	21	2
				27	4(43) 12(12) #3 #5	9(20)	57	20	2.9
				28	5(37) 9(20) #8	3(79) 8(15) #9	58	95	0.6

Source: Nussbaum 2000 and authors fieldnotes