ORIGINAL RESEARCH



Exploring Domains of Quality-of-Life with Vulnerable Young People in Bogotá: A Capability Approach Perspective

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Abstract

Young adults aged 18-28 represent a pivotal demographic whose experiences of inequality significantly shape their life trajectories in cities. Despite their potential for innovation and social advancement, public agendas often marginalize their needs and aspirations. This paper explores urban inequality among young adults by examining how they define and value different aspects of their daily lives when urban inequality is at play. Drawing on focus group discussions in two socioeconomically segregated urban districts in Bogotá, this paper employs the capability approach to construct a comprehensive list of 15 capability domains that young adults use to define and value their daily experiences. The paper adds to the existing literature a detail a step-by-step process involving the identification, selection, and ranking of relevant capabilities, with young adults actively engaged in value judgements through a deliberative process of public reasoning. Findings reveal that quality-of-life domains for young adults extend beyond traditional youth policy sectors, encompassing political participation, public space and mobility, social norms, and independence. The results not only expand the scope of existing youth agendas but also align with demands expressed during recent social unrest in Colombia and the region, where young adults have played a central and vocal role.

Keywords Capability approach · Participatory approach · Quality-of-life · Young adults · Residential segregation · Urban capabilities · Bogota

1 Introduction

For many young adults (18–28 years), inequality has emerged as a noteworthy aspect of their life experiences. Young adults belong to a demographic group for whom equality of outcomes and opportunities have become fundamental to ensuring that the developmental process is sustainable in the long term. Today, young adults simultaneously encapsulate the hope and despair of contemporary societies. Despite their potential in terms of innovation, energy and enthusiasm, young people are often neglected by public agendas which fail to translate social policy into progress and positive outcomes in their

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lives. For instance, traditionally, young individuals have often been linked to engaging in risky behaviours that are perceived as a threat to the stability and preservation of the established order (France, 2007). As a response, government initiatives have frequently addressed the youth issue in a reactive way, frequently employing "carrot-and-stick" approaches. Policies often oscillate between protecting young individuals from perceived risks or adopting draconian and interventionist measures to enforce order and control. In both approaches, the youth question is approached with a partial solution and does not consider the relevance of understanding young adults as experiencing a distinct life stage before transitioning to full adulthood.

The social and economic context in which young adults grow, and which significantly influences their life trajectories, often fails to recognise the role that young adults have in promoting their own development. For instance, the notion that young adults are in the process of *becoming someone* enables judgmental attitudes that limit their voices and their ability to make informed decisions based on their own criteria and judgment. This kind of perspective constrains the conception and implementation of rights and freedoms for young adults as they are often framed in a restrictive and inhibitory manner which may also inhibit the realisation of these rights. Common platitudes such as 'young people are the future of our societies' or 'their future is our future' put the emphasis of the realisation of rights once they arrive at adulthood rather than in their present reality.

This situation becomes even more explicit when attempting to understand and assess the quality-of-life of young people. Assessments often prioritize an adultcentric perspective, limiting their capacity to evaluate and prioritize their actual aspirations and motivations. As mentioned previously by Saito (2003), in giving temporal freedom to young people, the granting of rights in the future is not necessarily guaranteed in full in the present. For this reason, the deferral of seeing young adults as adults and the tendency to protect their rights for the sake of a better future for them, only serves to perpetuate the lack of a suitable framework of freedoms and rights in the present.

This paper departs from conventional perspectives that conceptualise and assess quality-of-life, opting instead for a people-centred approach to shed light on the contextual dimensions that influence the youth condition. The paper analyses the case of vulnerable young adults in Bogota and advocates for the use of the Capability Approach (Sen, 1985, 2009) as a normative framework to identify and choose domains of quality-of-life. This study focused on identifying dimensions of quality of life that are relevant for young people when processes of urban inequality and marginalisation are at play within cities. Urban inequality is examined through the phenomenon of residential segregation (Aliaga & Álvarez, 2010), particularly the lack of social mixing prevalent in cities like Bogota, where spatial distances between rich and poor not only lead to negative effects such as limited job opportunities but also perpetuate social stereotypes and foster feelings of social exclusion, displacement and disenfranchisement (Hernandez, 2017; Salas Vanegas, 2008).

The article is organised as follows. First, I explore how youth studies can benefit from a people-centred well-being perspective by employing the analytical framework of the Capability Approach to assess domains of quality-of-life among young people. Second, I outline the key steps taken to identify relevant capabilities and functionings together with young adults, proposing a participatory methodology that ensures active involvement from young people. The overall result is the development of a list of valuable capabilities that are central to assessing young adults' quality-of-life. Finally, I discuss some practical aspects and implications for further research on using participatory approaches to identify capabilities on young people.



2 Urban Quality-of-Life for Marginalised Young Adults: Towards a Framework Informed by the Capability Approach

From the perspective of youth studies and quality-of-life studies, the notion of young people's quality-of-life has traditionally been approached as a medical issue, with the aim of promoting individualistic models of health (Maker Castro et al., 2022; Roberts, 2020). From this perspective, the debate about assessing and improving their quality-of-life has been limited to improving different aspects of their physical and mental health (Chen et al., 2004). More recently, social well-being and contextual factors have been considered in the analysis, confirming that health problems are not limited to the individual domain but are also affected by and relevant to social relations and the social context.

However, it is worth noting that there is an implicit recognition that the dualistic relationship between health and quality-of-life is not sufficient to understand young people's quality-of-life; the notion of quality-of-life should include other domains and allow a more multidimensional view of quality-of-life, where the physical and social dimension are linked. During emergent adulthood, young adults exercise their identity to its fullest extent, where social, economic, environmental, and cultural dynamics play a fundamental role in the way they capitalise on the endowment of capabilities previously acquired in earlier developmental stages. For this reason, it is imperative that the study of young adults' quality-of-life belongs involves more interdisciplinary investigation as well as methodological diversity if it is to understand and address the multifaceted and constantly evolving issues facing young people today (Evans, 2002; Nkula-Wenz et al., 2022). Political ecology studies and urban studies have contributed to broadening the range of issues that are thought to affect young adults' trajectories, many of which have been omitted in the analysis of people's quality-of-life. These sorts of studies have examined the obstacles that hinder young adults' access to resources and opportunities, identifying factors that increase their vulnerability in urban settings. These include environmental hazards such as air pollution, along with limited access to education, employment, and affordable housing (France et al., 2012; Harvey & Smith, 2008). By scrutinising these barriers, these approaches have brought to light the mechanisms that exacerbate the vulnerability of young adults while also suggesting potential approaches to address them.

Nevertheless, these approaches can have a limited focus on economic factors which reduce the importance of political and social dimension of inequality. But more importantly, these approaches tend to essentialise and homogenise marginalised groups, treating them as fixed entities who live singular experiences, rather than acknowledging their inherent diversity. This tendency is problematic because it overlooks the heterogeneity of marginalised populations, which can lead to a narrow and incomplete understanding of the complex social, economic, and political factors that contribute to urban inequalities (van Lanen, 2020).

The use of the Capability Approach can be notoriously relevant in encountering this situation as it emphasises the importance of focusing on people's capabilities, rather than just their access to resources or material goods. The capability approach offers a more nuanced understanding of quality-of-life by focusing on individual agency and the capabilities needed to live a fulfilling life. By acknowledging that young adults have unique sets of capabilities and that they face distinct challenges in achieving their full potential, the capability approach helps to avoid essentialising and homogenising marginalised groups. This theoretical proposal is very appealing to understand but also to explore how young adults navigate these obstacles



and determine what resources and opportunities are needed to enhance their capabilities and quality-of-life when processes of urban inequality are at play.

On the use of the Capability Approach, much research has been devoted to linking concepts of opportunities, agency and freedom to the field of child and adolescence development (Biggeri et al., 2006, 2011; Wright, 2012; Peleg, 2013; Stoecklin et al., Bonvin, 2014; Haisma et al., 2018; Yousefzadeh et al., 2019; Domínguez-Serrano & del Moral-Espín, 2022; Chakraborty et al., 2024). On a smaller scale, the Capability Approach has been used to understand dynamics of certain groups (Burchardt & Vizard, 2011; Yap & Yu, 2016) or domains of quality-of-life on young people in particular sectors (Dejaeghere, 2020; Egdell & McQuaid, 2016). This situation might have produced a tendency to extrapolate findings from younger age groups—particularly from the childhood and adolescence periods—onto young adults to arrive at conclusions regarding behaviours, social lifestyle and even quality-of-life categories—resulting in a partial conceptualisation of human capabilities in later categories of young adults.

The under-theorisation of the young adult category in the Capability Approach can be seen as an extension of the recurrent reluctance to consider children as self-determinant agents able to make rational and autonomous decisions. The assessment of children's qualityof-life is often jeopardised by the tendency of adults to view children's attitudes, behaviours and emotions from a purely adult perspective (Duarte Quapper, 2012; Heatley Tejada, 2022; Petr, 1992). There is also a tendency to consider future outcomes (what or whom children will become) rather than current quality-of-life (Ben-Arieh et al., 2014). By doing this, children's capabilities are not seen as important for their own exercise of freedom and agency but in terms of as a step towards developing future 'mature adult capabilities' (Nussbaum, 2001, p. 89). A paternalistic view of what children should do and be, has similar epistemological implications for the identification and definition of relevant capabilities for young adults. This adultcentric bias (Goode, 1986) during the youth period overlooks the idea that they are able to make rational and autonomous decisions, in addition to assuming that their behaviours are often influenced by those who dominate existing cultural, social and political decision making structures in areas. In exploring this last point, young adults can be described as a subset of individuals who treated as adults but restricted in terms of how their everyday features and characteristics are defined. For many young adults, decisions affecting them are made in an opaque way within an unreflective environment, since the majority of these decisions are made or influenced by adults. The autonomy gained through independence is strongly determined by the context and capacity with which the young adult reaches adulthood. As is the case with children's quality-of-life, young adults are not seen and treated as young adults qua young adults by normative theories of quality-of-life but as the most common age category for researchers: adults (Mackay, 1974). Indeed, current frameworks of analysis on evaluation and assessment of individual quality-of-life of young adults seem to be permeated by youth studies that consider young adults as a subset of either the adolescent or adulthood periods, or at worst, as a non-existent age category, and hence, failing to offer a fitting and comprehensive framework within which to conceptualise young adults' quality-of-life. By doing this, ongoing social and economic factors that restrict young adults' quality-of-life remain unseen and unattended to.



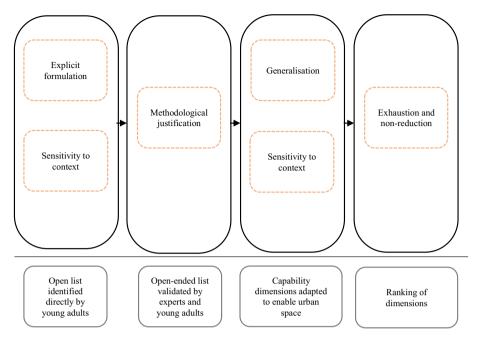


Fig. 1 Methodology sequence to identify relevant capabilities. *Source*: (Bucheli, 2019)

3 Conceptualising Relevant Capabilities Using a Participatory Approach: A Step-by-Step Process

In order to move towards a wider definition on young adults' quality-of-life, where the idea of human advantages is based on an individual point of view—who they are—while also taking into account the environment in which the individual is immersed—where they live, this study used a participatory approach aiming to co-create with vulnerable young people in Bogota relevant domains of quality- of-life. Similar studies that attempt to operationalise the capabilities approach have utilised participatory approaches and techniques to both identify and validate capabilities among particular populations (Al-Janabi et al., 2015; Anand & van Hees, 2006; Burchardt & Grand, 2002; Greco et al., 2015; Grewal et al., 2006; Mitchell et al., 2017), however a detailed explanatory process on how select and prioritise capabilities directly with individuals is lacking. For this reason, this study aims to fill that methodological gap in the literature by detailing the steps required to investigate potential capabilities in target groups without having predefined categories or dimension.

The process of identifying relevant capabilities for vulnerable young adults aimed to achieve two main objectives. First, to develop a list of dimensions/categories of quality-of-life for and with young adults; and second, to combine this with a place-based approach that sheds light on how the production of urban inequality affects the generation of capabilities and functionings on young people. The methodology proposed for identifying the relevant capabilities for young adults has four main stages (Fig. 1) and is adapted from Robeyns' five criteria to identify basic capabilities (2003, 2005). The five criteria are: (i) *explicit formulation*: have an explicit, discussed and defended list of relevant capabilities; (ii) *methodological justification*: justify the methodology that has been used to generate



the list of relevant capabilities; (iii) sensitive to context: the identified list should seek to be both abstract and practical in order to satisfy different audiences; (iv) different levels of generality: identify relevant capabilities that are not only comprehensive of ideal domains of quality-of-life but that are also feasibly achievable; and (v) exhaustion and non-reduction: the list of relevant capabilities should include all dimensions that are important to quality-of-life. Equally important under this criterion is that no dimensions identified should be reducible to other elements.

The first stage of the process consisted of creating an open list of relevant capabilities based on young adults' inputs. Bearing in mind the significance of context—particularly one that is formed within a context of residential segregation—for conceptualising and compartmentalising dimensions of quality-of-life, it was decided to start the exercise with a participatory activity instead of generating an open list of capabilities based on specialised literature or expert comments. Methodological exercises, which identify domains of quality-of-life based on an open-ended list of capabilities, tend to be biased by the researcher's role and perspective if a serious process of reflection has not taken place. Additionally, no other list of capabilities has been identified with young adults, making it likely that experts might extrapolate young adults' priorities from categories previously identified in other age groups. This last aspect is also in line with the aim of identifying a universal list of capabilities directly with the group of stakeholders affected. Biggeri and Mehrotra (2011) highlight the difficulty in attempting to identify a universal list of capabilities using domains identified by other groups. As such, it was considered more appropriate to start from a list of domains directly identified by young adults where interests, motivations and prioritisation can be put in place, thus achieving the criteria of explicit formulation.

In parallel, this stage also aimed to consider unequal socio-spatial relations in the identification of domains of young adults' quality-of-life. The criterion of sensitivity to context was adapted to identify how urban dynamics affect young adults' quality-of-life. For this reason, 'thinking spatially', through the incorporation of identified domains of quality-of-life that are sensitive to the urban context, was central to this stage of the process.

The second stage focused on validating the initial list by refining, expanding, or merging the identified dimensions using different methods that researchers have used to identify capabilities and dimensions of quality-of-life in previous research. Alkire (2007) summarises these methods as follows: (i) Use existing capability data or conventions; (ii) Make assumptions based on a theory or experience; (iii) Draw on an existing list that was generated by consensus; (iv) Use an ongoing deliberative participatory process; and (v) Propose dimensions based on empirical data and/or behaviours relevant to values and preferences. The validation process is an attempt to fulfil the criterion of methodological justification and to give a solution to the identification of dimensions that are connected to personal circumstances, which can lead to distortions such as the problem of adaptive preferences. In operational terms, this stage involved a two-way verification sequence through a participatory and deliberative approach. Firstly, the identified list of domains was compared to existing data, expert analysis and previous lists based on consensus. As such, the list was complemented without being reduced, as it was decided to keep all domains that had been prioritised directly by young adults earlier. Secondly, results from comparing domains to existing data were presented to young adults in focus group discussions (FGDs) in order to validate new variables or domains suggested by experts in the field and listed based on consensus by specialised institutions. Once these additional domains had been validated by young adults, the exercise progressed towards the identification of specific capabilities in each prioritised domain. During both stages, a participatory approach was put in place to ensure that stakeholders and expert opinions were heard and included in the final list by



young adults. However, it is crucial to bear in mind that the ultimate decision to include or exclude any aspect or suggestion proposed by thematic experts was ultimately made by young adults participating in the focus group discussions. By doing this, the open list was made explicit, discussed, and defended, and the open-ended list was defined by a method that was clarified, scrutinised, and defended—in adherence to Robeyns' criterion of *explicit formulation and methodological justification*.

The third stage deals with the criteria of different levels of generality, which involved selecting specific dimensions to link them with the context of residential segregation. Participants were asked to select capabilities from the identified dimensions that might be affected, positively or negatively, by living in their neighbourhood. This stage was conducted with the aim of identifying capabilities that were affected by living in residential segregated spaces in Bogota. While the focus in the first stage was to identify a general list of capabilities, here the aim was to identify those that have a more specific application in understanding urban quality-of-life and that do not have issues with data availability. The selection of capabilities that have a link with the urban context was carried out by directly asking young adults to relate them with Lynch's five clusters of qualities of a good city: vitality, sense, fit, access, and control. Lynch's framework for the inspection of capabilities was also used with experts to analyse available data. The result of this process was an adaptation of dimensions of quality-of-life sensitive to the urban context of Bogota.

The fourth and final stage consisted of critically assessing identified domains and leaving only those that were deemed to be relevant and important. To do this, the application of the *criterion of exhaustion and non-reduction* was used. In the first and second stage, an ex-ante reduction was put in place as domains were merged due to some overlap. In this stage, the process of exhaustion and non-reduction was applied through a process of assigning weights to each domain. During the first round of FGDs, each young adult participant was asked to prioritise the dimensions of quality-of-life from the most important to the least important domain. Differential rankings between urban settings allowed for the identification of those domains that were more sensitive to each context and thereby identifying the effects of residential segregation on young adults' quality-of-life. Additionally, weights helped not just to rank all dimensions but also to identify potential mergers between domains.

3.1 Target Groups and Data

To identify the capabilities of young adults living in conditions of urban inequity, a spatial inequality indicator was employed, aiming to capture diverse perspectives on how vulnerable youth live and experience the city. Data was collected using the index of residential segregation (SRS)¹ produced by the Planning Secretariat of Bogota.

This index measures the level of diversity present in the city through a battery of social and economic indicators. This indicator was considered in order to prioritise areas of Bogota that exhibit high and low rates of residential segregation, providing a contrasting perspective on how the city is experienced by vulnerable young adults. Following the most recent assessment of segregation indices in Bogota, the urban locality of Ciudad Bolivar

¹ A score greater than 1 on the SRS shows that households present a low association and heterogeneity in the evaluated variables whereas a SRS score of less than 1 indicates that the spatial unit being studied displays a higher level of association between variables, suggesting homogeneity among households.



shows the highest level of residential segregation (0.30) whereas Chapinero urban district scores the lowest (2.41) (SDP, 2019). Having prioritised these two urban areas, a process of consultation with local youth organisations and the Secretary of Social Integration from Bogota was carried out to identify young adults aged 18 to 28 years living in both urban areas and who were classified as vulnerable persons bases on a battery of socioeconomic characteristics (Household income and expenditures, age of household head, years of education of household head and average value per square meter). The prioritization of these two localities enables us to understand how young adults in conditions of socioeconomic vulnerability experience different levels of urban inequality, measured in terms of residential segregation.

Through the youth centres located in each of the prioritised localities, an open call was made inviting young people from each urban area to participate in the research. In total, two rounds of focus group discussions were implemented in each urban district involving 55 young adults in total. The data collected were primarily obtained through FGDs conducted in each locality, along with semi-structured interviews with young leaders from each of the localities. Young adults involved in this study were fully informed about the nature of the research process and the likely outcomes. The data collection adhered to ethical research practices, including obtaining informed consent and implementing protocols to ensure anonymity and confidentiality.

4 Identifying and Choosing Domains of Urban Quality-of-Life

During the first round of FGDs, young adults' comments were classified and organised to come up with a set of potential categories of quality-of-life. The data management process drew on tools from Participatory Action Research and Framework Analysis (Ritchie & Spencer, 1994), in order to facilitate the process for ordering and synthesising data. Participants developed a 'thematic framework' to classify and organised data according to key themes, concepts, and emerging categories (domains) discussed during FGDs. Thematic frameworks are usually developed by a researcher through the analysis of interview or discussion transcripts where data may be 'unwieldy and intertwined in content' (Ritchie & Spencer, 1994, p. 220). For this exercise, the thematic framework was developed through a process of consensus among FGD participants, who collectively identified the major categories of quality-of-life in a urban context. Thus, the identification of the thematic framework entailed the combination of participatory techniques to reflect major discussions, making the ordering and synthesis of data easier and more inclusive. Based on a participatory process, where all participants' contributions were treated equally, respondents worked to identify the thematic framework of what quality-of-life is. The researcher moderated the discussions to build consensus among participants in order to extract themes for each dimension.

The exercise began with identifying the first themes and concepts related to quality-of-life in each urban locality and neighbourhood. The moderator started by explaining that during the workshop cards of different colours would be used to present information visually and clearly. He also explained that the concreteness and clarity of suggestions and ideas would be central to the exercise. Immediately after this, groups were asked to answer the question: What does urban quality-of-life mean to me? The question was presented on a blue card, which was stuck on the wall so each participant could see it and reflect on it. The moderator explained that responses must be concise and no longer than three lines.





Fig. 2 Identification of themes and concepts of urban quality-of-life

Participants were asked to write down their responses on the cards. As participants wrote on the cards, the moderator collected them and placed them with the front side facing the wall. The intention was to encourage the identification of themes creatively and without bias from other responses. The moderator handed out more cards for those who wanted to write more than one card. There was no limit to the number of cards per participant. All answers on cards were treated as themes and concepts of what constitutes quality-of-life for young adults. Consequently, consensus was reached within the group on the identification of capabilities.

When the participants had completed their responses, the moderator turned the cards round and asked participants to provide further details for each given response. To protect the anonymity of each participant, the moderator did not ask each person directly about what they had written on the cards, but rather asked the group as a whole, so each participant would feel free to add more information without embarrassment of the fear of being stigmatised due to their responses. In a sequence of asking why and how during each response, a laddering technique (Reynolds & Gutman, 1988) was introduced in order to extract higher-order meanings that drive respondents to conceptualise quality-of-life in each neighbourhood. For each given response, the moderator asked why that aspect is important for conceptualising quality-of-life. New responses were registered on cards and added to the previously identified concepts. See Fig. 2. The information provided by respondents which was not registered on cards, was recorded on audio tapes to be analysed after the exercise. This stage was consistent with the protocol proposed by the framework analysis (Ritchie & Spencer, 1994) of identifying concepts and themes.

Once the participants had no further responses (themes and concepts) in relation to the initial question, the moderator asked the group to sort responses where meanings were



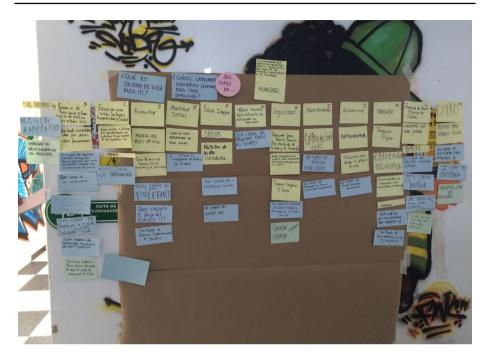


Fig. 3 Classification and nomination of main concepts of urban quality-of-life

similar. During the process of indexing responses, participants were asked to find links between responses, in order to identify an initial hierarchy of themes to contribute to an understanding of quality-of-life. To this purpose, cards were grouped into columns where similar meanings and recurring ideas were present. The moderator played a central role in making the participatory exercise inclusive and concise. Respondents found some themes difficult to sort, so other categories were created to facilitate the discussions.

The next step consisted of devising a label for each emergent category. As participants sorted the cards, the moderator asked participants to come up with a name for each column, which should encompass the themes and concepts located in the category. During a process of discussion, respondents summarised each column and came up with a comprehensive term. Each column was named through consensus, led by the moderator. All these stages were performed during each FGDs conducted in each urban locality, where different domains and subthemes were identified. Some domains were similar between groups and were named in a similar way (Fig. 3).

After establishing the different domains, the moderator asked the participants to identify those capabilities which they considered central to achieving each dimension identified. The question asked was: *Taking into account identified dimensions, which capabilities are necessary to achieve these dimensions*? To further explain the term "capability" to participants, the moderator asked them to start their answer with '*To be able to ...*', thereby emphasising the need to frame the discussion around those abilities which young adults considered to be important to transform available resources and goods into tangible opportunities and achievements. Each response was again written on cards and was located below each dimension of quality-of-life. All of categories identified during the FGDs were grouped and listed in a total of 20 dimensions of quality-of-life for young people (Table 1).



Table 1 Domains of quality-of-life for young adults in Bogota (all FGD)

Domains of quality-of-life (not ranked)		
Tolerance	Ability to dream	
Political participation	Shelter/housing	
Security	Family and friendship	
Leisure time	Education	
Support	Ability to consume	
Public space and mobility	Environment	
Health	Culture	
Food security	Success	
Feel free to choose	Creativity and production of ideas	
Work	Inclusion	

Source: FGDs in each urban locality

Once participants had identified a list of capabilities, a relational process was established to establish the role domains of quality-of-life play in the formation of urban spaces, and more specifically with regards to the phenomenon of residential segregation. The interpretation of how residential segregation affects the production of capabilities involved two stages. Following the identification and classification of domains of quality-of-life, each domain was linked to one of Lynch's five performance criteria of what constitutes a 'good city': vitality, sense, fit, access, and control. The performance criteria were used to frame young adults' capabilities within an urban perspective, particularly as a methodological step to ground categories of young adults' quality-of-life in the context of spatial inequalities. In practical terms, young adults in each research location were asked to assign each quality-of-life domain one of Lynch's criteria.² This approach led to the development of a refined capability list that could be critically assessed from an urban perspective in further research.

5 Ranking Domains

The next stage of the development of the evaluative framework consisted of ranking domains of quality-of-life to identify capabilities that were more sensitive to the effects of residential segregation, facilitating the assignment of weights in accordance with their relative importance. During the operationalisation of the CA, once a list of capabilities has been identified, researchers are usually faced with the challenge of keeping the list of selected dimensions intact (dimensions that are thought to be essential to assessing quality-of-life). Schokkaert (2008) refers to this as the indexing problem, as assigning weights to each dimension is not a straightforward procedure. A multidimensional index of quality-of-life requires explicit engagement with value judgements (Ravallion, 1997) as dimensions are essentially different to one another, which means that one cannot assume equivalence between dimensions, as dimensions are different per se.

² Detailed participant comments regarding each domain of quality-of-life are not shown for the sake of brevity but are available upon request.



The literature on the CA provides a range of methodological tools to calculate the weight of a given set of dimensions of quality-of-life. Decancq and Lugo (2013) classify three possible approaches to assigning weights to dimensions. On the one hand, there are normative approaches, which rely on value judgments made by people such as researchers, participants, or thematic experts. This approach also included assigning weights by drawing on subjective views from the population (Klasen, 2000). Another possibility is the data-driven approach, which uses statistical techniques such as principal component analysis (PCA), factor analysis (FA) or fuzzy set methodologies. By doing this, individuals can vote for the dimensions they consider more critical to achieving a given specific outcome.

A third group can be termed as hybrid weighting (Greco, 2018), where opinions of individuals are combined with qualitative analysis.

This study adopts a normative approach for aggregating preferences, using Borda's ranking rule as a suitable rank-order method to identify which domains are most important in the context of urban segregation. Using the Borda count addresses the challenge of deciding which domains are more relevant than others. There have been several instances where the capability approach has used the Borda rule as an efficient rule system for aggregating dimensions (Dasgupta & Weale, 1992; Qizilbash, 1997).

The Borda count method offers a voting procedure for ranking alternatives (Zahid & de Swart, 2015) and draws on social choice theory, where people are expected to provide a preference ordering of possible alternatives (Arrow, 1950, 1951). The selection of the Borda count as a method of aggregation was based on its ability to verify conditions of consistency, monotonicity, and Pareto optimal, in addition to being a simple method to explain and apply (Martín Martín et al., 2021). During the process, final rankings take into account the relative preference of all the candidates, so at that the end result considers not just those dimensions that ranked first, but also those that ranked last. As an aggregative method, the Borda count is considered a 'preference-based voting' system rather than a majoritarian one, as participants rank their preference by order. (Reilly, 2002).³

During the first round of FDGs, young adults were asked to arrange all of the identified domains according to the order of importance in terms of achieving good quality-of-life in Bogota. The moderator asked respondents to prioritise each domain based on their experience of living in their specific neighbourhood. Thus, the given order by each participant would implicitly assess the effect of place in each urban setting. The Borda count was calculated for each dimension by giving the last alternative 1 point, and the top alternative the number of points equal to the total number (N) of domains identified. The total number of points obtained by each alternative is summed across all the options so that a partial rank is obtained. The results of the Borda ranking for each FGD are presented in Table 2.

A single list of higher-ordered dimensions was calculated from the ordinal information produced in each FGD. Using the results (ranks) of the first Borda round, a second Borda count was conducted so scores could be aggregated in a single list of

⁴ To avoid subequent changes to scores due to peer influence, each participant was given a card to rank each dimension according to its perceived importance. Completed individual cards were returned to the moderator, who reshuffled them so that participants could not change their original scores.



³ Unlike Condorcet criterion, the Borda count chooses a definite and systematic winner among multiple options without failing to find a majority winner. The Borda count asks people to pick out and order alternatives according to their preferences. The last preference cast should receive 1 point, the penultimate preference should get 2 points, and so on up to the first preference, which gets n points (n-1, n-2, ..., 0). The point awarded to each alternative will be summed across voters so the alternative with more points will be selected as a winner (Black et al., 2012).

 $\textbf{Table 2} \ \ \text{Ranking of quality-of-life for young adults using Borda count (each FGD)}$

FGD 1 Chapinero $N = 17$	Borda score FGD 2 Chapin	FGD 2 Chapinero N=9	Borda score FGD 3 Ciudad	FGD 3 Ciudad Bolívar $N=13$	Borda score FGD 4 Ciudad	FGD 4 Ciudad Bolívar $N = 16$	Borda score
1. Security	95	1. Shelter	46	1. Education	150	1. Education	96
2. Support	93	2. Work	43	2. Health	121	2. Affection and friendship	82
3. Education	92	3. Education	38	3. Autonomy	1117	3. Health	9/
4. Family and friends	84	4. Health	37	4. Security	106	4. Economy	73
5. Good habits	80	5. Environment	25	5. Work	105	5. Work	71
6. Tolerance	79	6. Security	24	6. Accessibility	66	6. Political participation	99
7. Food security	75	7. Street culture	23	7. Spaces for participation	26	7. Shelter	65
7 Work	75	8. Green spaces	20	8. Success	95	8. Food security	63
9. Leisure time	74	9. Family	14	8. Tolerance and responsibility with society	95	9. Leisure time	59
10. Health	73			10. Creativity and production of ideas	68	10. Respect and tolerance	99
11. Participation	70			10. Good friends	68	11. Environment	54
11. Public space and mobility	70			12. Leisure time	99	12. Inclusion	51
13. Shelter	69			13. Transform economic model	55	13. Culture	47
14. Ability to dream	99					14. Ability to change the territory	37
15. Feel free to choose	54					15 Security	34
16. Responsible	43					16. Aesthetic	22
17. Ability to consume	32						



Table 3 Ranking of quality-of-life domains for young adults using Borda count (aggregation)

Domains of quality of life	Borda rank	Borda score
Education	1	64
Health	2	53
Work	2	53
Family and friendship	4	46
Safety	4	46
Shelter/housing	6	33
Political participation	7	30
Tolerance	7	30
Culture	9	28
Leisure time	10	24
Environment	11	20
Food security	11	20
Feel free to choose	13	18
Public space and mobility	13	18
Support	15	16
Ability to consume	16	15
Inclusion	17	11
Success	18	10
Creativity and production of ideas	19	8
Ability to dream	20	4

rankings. FGDs' alternatives were ranked according to each component of quality-of-life. Again, all alternatives were cast with the worst scoring 1 and the best scoring the total number of available domains (N). The outcome of this exercise is reported in Table 3.

In each urban setting, young adults gave different weights for each identified domain of quality-of-life, confirming the issue of non-comparability between capabilities (see Table 4). With the exception of *Education*, all domains received different weights in each of the two urban settings. The most important domains for worse-off young adults in heterogeneous communities were identified as *Education*, *Security*, *Work*, *Friendship and family*, and *Shelter*. In the case of young adults from homogeneous areas, the most important domains were *Education*, *Health*, *Work*, *Political participation*, and *Friendship and family*. Domains are not the same but are similar. Three out of five domains can be considered to be common for young adults in both urban settings.

Differences in weight between locations are also explained by characteristics found in each urban setting, indicating the role of place in shaping capabilities. A convergence/divergence analysis was carried out in order to nuance differences between positions in each ranking. Convergence occurs when domains from both locations tend to be located in the same ranking, independently of their positions. Divergence occurs when domains are widely separated from one another, independently of their positions. Minimal cardinal differences are found in the domains of *Education* and *Work*, with young adults from Ciudad Bolivar and Chapinero ranking them equally. The majority of domains displayed convergence patterns between locations, as ordinal distances were



Table 4 Ranking of quality-of-life for each urban setting

Rank	Juan XXIII Chapinero	Rank	Perdomo Alto Ciudad Bolívar
1	Education	1	Education
2	Security	2	Health
3	Work	3	Work
4	Friendship and family	4	Political participation
5	Shelter	4	Friendship and family
5	Health	6	Security
7	Public space and mobility	6	Tolerance
7	Support	6	Culture
9	Environment	9	Leisure time
9	Tolerance	9	Feel free to choose
11	Culture	11	Ability to pay
12	Food security	12	Shelter
13	Leisure time	13	Food security
14	Political participation	13	Success
15	Ability to dream	15	Creativity and production of ideas
16	Feel free to choose	16	Environment
17	Ability to pay	17	Inclusion
18	Creativity and production of ideas	18	Public space and mobility
18	Inclusion	19	Support
18	Success	19	Ability to dream

shown to be relatively close. This is the case for the domains of *Friendship and family*, *Food security*, *Inclusion*, *Tolerance*, *Culture*, *Security*, *Health*, *Leisure*, and *Ability to dream*. At the other end of the scale, domains of *Political participation*, *Public space and mobility*, and *Support* were shown to be divergent as the ordinal distance between urban settings is marked. Other domains with a divergent pattern are *Feel free to choose*, *Ability to pay*, *Success*, *Shelter*, and *Environment*.

6 Refining and Classifying Domains of Quality-of-life

The next stage of the process was concerned with refining and reclassifying domains of quality-of-life for young adults. This was undertaken using tools from framework analysis (Ritchie et al., 2013) which facilitated the process of organising and synthesising data. Here, the reduction or merging of domains consisted of detecting substantive content, validating previous categorisation and reclassifying domains of quality-of-life where necessary (Ritchie & Spencer, 1994). The analysis of detection, categorisation and classification was carried out bearing in mind the results of the Borda count.

During the process of detection, dimensions identified during each FGD were compared in order to find similarities between meaningful ideas. Equally, the analysis looked at the range of perceptions and attitudes related to each theme, as well as comparing each domain within groups and across groups. For instance, the dimension *Security* was one of

FGD 1 Chapinero	FGD 2 Chapinero	FGD 3 Ciudad Bolívar	FGD 4 Ciudad Bolívar
More security	Less police presence	Be peaceful in my surroundings	Nights without feeling fear
Security	No police corruption	Be mobile in the city under good conditions of security	Respect for human life
No robbery		Secure spaces	
Walk without feeling fear			

the dimensions that each FGD valued as a relevant quality-of-life category (Table 5). For this domain, analysis was carried out with the aim of understanding 'what is happening' (Ritchie & Spencer, 1994, p. 239) within the category. For the young adults participating in the exercise, security is related not only to the consequences of insecurity and crime in Bogota, where feeling vulnerable to assault is commonplace. Security also concerns violence between young people belonging to different subcultures, as well as the anxiety produced by the presence of police. This dimension encompasses not just elements of bodily integrity but also of affiliation, particularly the capability to enjoy self-respect and non-humiliation, thereby ensuring protection against discrimination (Nussbaum, 2001). Thus, after applying a detection process to this domain, those elements that were associated with the latter definition of security (discrimination) were reclassified into the domain of Inclusion.

Each dimension was inspected, questioned, and refined so the main subjects and topics could be identified. Young adults' capabilities were also examined to validate consistency between dimensions and inter-dimensions. In this section, the level of abstraction of each domain was reassessed through a consultative process with participants from the FGDs. As is recommended by some practitioners, new and refined domains were agreed by the entire group, and not by just a few participants (Kinghorn, 2010). By doing this, it was ensured that dimensions of quality-of-life were as general as possible to the extent that all young adults could understand the meaning of each dimension.

After looking within the themes and capabilities in each dimension, and paying attention to similarities between the main ideas, attitudes, views and experiences that young adults contributed during FGDs, a process of classification and re-categorisation took place. Unlike the traditional process suggested by framework analysis, where data and emergent themes are first categorised and then classified, here the nature of how data were collected and organised suggested that the classification should take place before the categorisation. Since themes were classified directly with participants, an implicit pre-categorisation already existed. Thus, in order to aggregate all different domains from the FGD into a single list, it was necessary to start grouping themes within domains previously identified. In that sense, a classification process preceded the creation and then nomination of domains. Equally important, if it was not feasible to merge a category with an existing one, that category would be considered a new quality-of-life dimension.

Congruent with the above, themes and names of domains were kept as per the original list, as the list of dimensions of quality-of-life for young adults demands a genuine process of public scrutiny and open debate for the identification of domains. A change in the categorisation would have altered the democratic codification and would have ended in



a biased exercise. Having considered framework analysis as a valid inductive exercise to identify quality-of-life domains, this adaptation was central to operationalising Sen's ideas of quality-of-life domains, where inherent categories were identified not just considering the urban context where young adults are immersed but also their opinions and views about what could be categorised as quality-of-life in Bogota.

At this stage, 15 dimensions of quality-of-life were identified. Each dimension was accompanied with the relevant capabilities also identified and classified by young adults during the FGD. The outcome of this exercise is reported in Table 6.

7 Conclusion

From a people centred perspective, this article follows a systematic approach to exploring, identifying and choosing relevant capabilities for young adults who live in vulnerable conditions within cities. The final list of capabilities provided in this paper is intended to provide a more comprehensive measure for evaluating domains of quality-of-life for young adults, based on direct consultation with a specific population.

The paper contributes to the ongoing scholarly dialogue about how to implement participatory approaches for assessing quality-of-life, but particularly in understanding inequality, marginalisation, and the challenges faced by youth during the transition to adulthood in a context of urban residential segregation. The study offers cross-cultural perspectives on the challenges faced by young adults, fostering a deeper understanding that can inform globally applicable strategies for quality-of-life enhancement. Nevertheless, it is important to highlight that the conclusions presented here are derived from an exercise carried out with young adults living in areas of residential segregation, which limits the generalisability of the results beyond this specific population.

The paper illustrates the added value of the capability approach in youth studies by considering a multidimensional perspective to assess quality-of-life during the young adult-hood period. The article describes in detail the methodological process used to identify and choosing relevant capabilities for targeted groups. The overall result of this process was the first capability list co-created for and with young adults in the context urban inequality. The list is composed of 15 domains, where significant aggregated weights were given to domains of education, health, work, family and friendship, and safety. The procedure undertaken herein demonstrates the feasibility of collecting primary data on capabilities. The identified capabilities and dimensions serve as direct manifestations of the decisions, preferences, and freedoms necessary to evaluate how young adults' quality-of-life.

Although at first glance, Sen's recommended approach to identifying capabilities can be frustrating due to the lack of a methodological guidance, the process documented here shows that methodological alternatives can render the approach accessible and straightforward. As pointed out previously by Alkire (2007), the practical application of the capability approach depends on how data is presented to researchers to select capabilities, making data availability a main consideration when identifying capabilities. Because of this, the identification and selection of relevant capabilities has tended to use existing data or make implicit and explicit assumptions about what people value, meaning that the process is less rigorous and results in a partial and unvalidated assessment of quality-of-life domains.

As the availability of data is a real constraint in the operationalisation of the capability approach, this work strongly advocates for the generation of more comprehensive and applicable research to show alternative methodological strategies that can effectively



 Table 6
 Refined open list of quality-of-life dimensions for young adults in segregated places

Dimensions	Capabilities
Tolerance, respect and membership To be able to accept and be accepted by members of different communities	To be able to live in harmony within the context and the community To be able to accept and be accepted by others To be able to respect the life of others To be able to respect, love and value others' lives To be able to be tolerant To be able to be a good human being
To be able to be recognised as a person with an individual identity and to be able to express it freely	To be able to accept responsibilities as a citizen To be able to interact with other young people To be able to create cultural spaces To be able to express oneself freely To be able to be respected as an artist
2. Political and social participation To be able to demand action from local authorities	To be able to influence political agendas To be able to produce participatory spaces To be able to transform the economic and social city model To be able to transform the social reality To be able to hear and be heard
3. Security To be able to live safely	To be able to move around the city without restrictions (stigmatisation from the police) To be able to feel safe To be able to enjoy public spaces To be able to enjoy secure spaces To be able to be quiet in public spaces To be able to have nights without fear
4. Leisure time and recreation To be able to have joy in life	To be able to exercise autonomy in the allocation of time To be able to spend time with family To be able to use leisure time to study personal subjects
5. Love, emotions, and support To be able to receive affection and to be able to benefit from having the support of family, friends, and the state	To be able to provide support to family and friends To be able to love one's family To be able to benefit from family, communitarian, and state support
To be able to love and be loved by those around me	To be able to give and receive social support To be able to give and receive love
Public space and mobility To be able to enjoy public spaces and to be able to mobilise without restriction in the city	To be able to use and enjoy public spaces To be able to enjoy greener spaces To be able to move from one place to another without physical restrictions
7. Life and health To be able to achieve a reasonable level of good health without restricting new experiences	To be able to be healthy To be able to establish limits To be able to have healthy habits
To be able to connect with the nature and the environment	To be able to have a clean environment To be able to respect the environment
8. Food security To be able to meet dietary needs	To be able to be well nourished To be able to produce local goods



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Dimensions	Capabilities
9. Occupation To be able to practise an activity with economic remuneration	To be able to work based on an entrepreneurial idea To be able to create new ideas to work To be able to have a decent job To be able to have economic stability To be able to satisfy personal needs and interests To be able to create associations To be able to produce economic gains from independent work To be able to become an entrepreneur
10. Shelter/housing To be able to live in a comfortable space, adapted to one's needs	To be able to live in a comfortable place To be able to be sheltered
11. Independence, autonomy and social relations To be able to participate in social networks and to be able to get ahead	To be able to choose friends To be able to have social relations with others To be able to make own decisions To be able to identify own 'life project'
To be able to be independent and feel like one has control over one's own life	To be able to express oneself To be able to choose one's spirituality To be able to make errors and mistakes
12. Knowledge and learning To be able to receive quality education	To be able to gain an academic title To be able to study To be able to obtain a quality education
13. Consumption To be able to have enough money to buy what one wants	To be able to buy
14. Success and prosperity To be able to achieve aspirations	To be able to improve as a person To be able to dream To be able to realise one's role in society
15. Inclusion and equality To be able to be recognised as a member of society with rights and duties	To be able to not be stigmatised or 'singled out' To be able to receive decent treatment To be able to be treated with dignity To be able to obtain a fair distribution of economic resources To be able to not be ignored

Source: author elaboration based on FGDs

identify and assess capabilities within specific groups. This type of research endeavours to provide more nuanced and practical insights into the measurement and evaluation of quality-of-life which is a real limitation in the capability literature.

In the case of young adults in Bogota, the availability of data and the existence of biased assumptions regarding what quality-of-life means for them, highlighted the need to adopt a deliberative participatory process. A participatory perspective in the selection of domains enhances how value judgments are made, and—particularly in the case of young adults—allows policymakers to capture views and perspectives that have not been previously considered. These 15 quality-of-life domains can serve as a starting point to characterise and address the current pressing needs of this population, which are often overlooked in public agendas.



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Declarations

Conflict of interest The author declares that there is no conflict of interest with any financial organisations regarding the materials reported in this manuscript.

Ethical Approval All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Ethics Committee of Department of Politics and International Studies (POLIS) at the University of Cambridge.

Research Interest Capability approach in urban context, urban inequality, young adults' quality of life, participatory and deliberative processes.

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