

Young Lives Methods Guide

The Longitudinal Survey



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The longitudinal survey at the centre of Young Lives consists of a set of questionnaires administered by interviewers, incorporating attitude scales and child development and cognitive assessments, which are applied every three years with all 12,000 of the Young Lives children, their primary caregivers and key informants in their communities. Together with the qualitative component and the school component, which involve successive rounds of in-depth research with sub-samples of the children, it forms the foundation of the longitudinal study.

Young Lives views childhood poverty as a complex, multi-dimensional phenomenon (Boyden and Dornan 2011). In order to understand more about its causes, consequences and transmission across generations, the study must therefore gather a broad range of data about the Young Lives children and their households and communities. This data must be structured to allow both cross-sectional and longitudinal analysis of a range of determinants and outcomes of poverty. In order to achieve this, each round of the survey consists of three closely linked components – child, household and community context surveys – each of which comprises a number of sections, makes use of several tools and is applied to different respondents.

- **The child survey** is designed to provide data at the level of the individual. In early rounds, when the younger cohort children were under 8 years old, this involved asking their caregivers about the health, well-being and care of the child from birth onwards. Once the children have passed the age of 8, while some questions are still addressed to their caregivers, the children are asked directly about their perceptions of well-being, their daily activities, their attitudes to school and work, how they feel they are treated by others, and their future aspirations. All the sample children are also weighed and measured to allow the calculation of wasting and stunting, and given age-appropriate tests to learn about their levels of literacy, numeracy and development.
- **The household survey** includes a roster which contains basic information about all members of the household, as well as covering a range of subjects including parental background and education, livelihood activities, assets, food and non-food consumption and expenditure, recent economic change, social capital, childcare, child health and access to basic services. The adults who care for the Young Lives children are also asked about their perceptions of and attitudes towards a range of subjects, and their aspirations for their child and family.

- **The community context survey** provides background information about the social, economic and environmental context of each community, covering topics that include population, ethnicity, religion and language, economic activity and employment, infrastructure and political representation. It also provides a detailed information map of the range of health, education and child protection services that are available to community members.

As well as content, key considerations in designing the protocols for each of these components are respondent burden, question clarity, potential for recall error, cultural sensitivity and developing clear definitions of basic terms like 'household'. In the case of the community context survey, central considerations are devising questions that are suitable for both rural and urban settings, and deciding what kind of community profile is necessary to inform the analysis of the household and child data.

In each round, the research protocols are piloted and revised before they are finalised, and detailed justification documents are drawn up for each section that explain why particular approaches and emphases were favoured. While some basic household data is collected in each round, each component is reviewed and new modules are introduced to reflect the age of children in the study and the issues that they and their families face at each phase of childhood, spanning infancy through to early adulthood. Adaptations also take account of learning from each successive experience of applying the survey and of conceptual and theoretical developments over time. Country-specific questions about policies and programmes affecting children are also included. During the first three rounds, the survey design has been adapted and altered in several different areas:

- **Respondents:** The principal survey respondents are the adult carers of the Young Lives children, the children themselves, and key informants in the community. In each round however, there are changes in the distribution of questions between these informants; as the children get older, more questions are directly addressed to them. Some rounds have also introduced new informants. In Round 3, for example, a section on siblings was included, and the community survey became more focused on services, requiring different key informants to be sought.
- **Content of sections:** Retaining core content unchanged across rounds is an important principle of longitudinal survey design, as this is what allows direct comparison between rounds. Nonetheless, while most section content does not change, some alterations are essential to take account of lifecycle and contextual changes. Some sections have been developed to address questions emerging from the baseline data collected in Round 1, while others have been strengthened to gather more

detailed information in particular thematic areas such as health and education. Other sections have become shorter as questions have been dropped where information is unlikely to have changed – for example, asking about a child's first language or number of older siblings. In some places, questions from particular sections – for example, those that ask about political capital – have been dropped in particular countries because of anticipated contextual bias.

- Number of sections:** In some cases, whole questionnaire sections are revised or removed to reflect life-cycle changes, such as the pregnancy, delivery and breast-feeding section of the Round 1 younger cohort child survey. In others cases, new sections are added. This can be either a reflection of a shift of emphasis in the conceptual framework of the whole study – such as the addition of a consumption and expenditure section in the Round 2 household questionnaire – or to the need to add country-specific sections, which usually gather data about specific policy initiatives of particular relevance to childhood poverty. Round 3 included a new self-administered module for the 15-year-old children in the older cohort, designed to help them be more comfortable answering sensitive questions.
- Style of questions and answers:** The way that some questions are asked has altered according to what has been learned in previous rounds. Some children were upset by negative questions which were asked in Round 2, so these were re-framed positively in Round 3. A four-point answer scale was adopted for some questions in Round 2 after a very high proportion of respondents chose the neutral middle option on the five-point answer scale used in Round 1. Faces illustrating different moods were chosen to supplement words on some 5-item answer scales in Round 3, while a visual Life Satisfaction Ladder was used in Round 2 to ask caregivers about their perception of their present and future life situation. Both were intended to improve ease for respondents and to introduce some variation into the process of administering the survey.

- maintaining a balance between preserving the continuity of core questions for longitudinal purposes and responding to shifts and changes in contextual debates on poverty and development policy.
- ensuring that questions are age-appropriate and adequately reflect variations in outlook, capacities and communication skills of the Young Lives children in different countries.
- ensuring that each of the three principal components complements the others, and that overlaps between them are intentional and contribute to triangulation.
- keeping the surveys short enough to carry out without danger of over-burdening respondents.

Developing the Round 1 survey

The research protocols for the first round of the Young Lives survey, carried out in 2002, were designed to provide baseline information both for subsequent rounds, and for the detailed thematic components that were included in the original plan for Young Lives. They aimed to produce data that favoured breadth over depth (Attawell 2003).

The process of developing the surveys was informed by a pilot study in South Africa and by the varied disciplinary perspectives of the study team. A literature review which drew together scattered information about poverty and children from different sources was used to identify key issues for analysis. This led to the prioritisation of six child welfare outcomes: physical health, nutrition, mental health, developmental stage, life skills, and perceptions of well-being. Having identified these key outcomes, flow charts were constructed to elaborate causal pathways and determinants for each outcome at the micro and macro levels. Three key 'storylines' – livelihoods, social relations and access to services – cut across all six flow charts, as well as reflecting contemporary development narratives (Attawell 2003). The outcomes and the storylines formed the conceptual foundation of the Round 1 survey protocols. Table 1 summarises the content of the child and household questionnaires that emerged from this process.

There are several over-arching challenges involved in designing research protocols for each successive round. These include:

Table 1. Content of child, household and community questionnaires, Round 1

	Household questionnaire	Child questionnaire	Community questionnaire
Both cohorts	Household composition Caregiver background Child health Household livelihoods Economic changes and events Socio-economic status Social status Child height and weight		Physical environment Social environment Infrastructure and amenities Economy Health and education Prices
Younger cohort only (age 6 to 18 months)	Pregnancy, delivery and breastfeeding Child care Caregiver mental health	Children too young to answer direct questions.	
Older cohort only (age 7 to 8 years)	Child mental health Child education and daily activities	Perceptions of well-being Social capital School and work Health Literacy, numeracy and child development	

Devising specific interview questions, well-being measures and child development assessments involved a lengthy process of negotiation and compromise as the enormous number of potential questions was whittled down to those considered essential to provide both adequate breadth and a balance of variables useful for both cross-sectional and longitudinal analysis.

The design of some questions drew heavily from existing instruments. The caregiver mental health questions, for example, were derived from a World Health Organization questionnaire, while the questions on work in the daily activities section of the older cohort household survey were based on a standardised, tested International Labour Organization survey methodology, and the child development test comprised Raven's Colour Progressive Matrices, a psychometric tool built around a series of visual problems, requiring the child to identify the missing elements in a series of patterns. It was selected as a non-verbal tool that has been widely used in cross-cultural research. Other areas used relatively new conceptual frameworks – such as livelihoods, social capital, vulnerability and coping strategies – where there was less experience of measurement to draw on. Here, the researchers relied more heavily on their own expertise and innovation to design simple methods that could be administered as part of a large survey instrument.

Round 2: learning from Round 1 and looking to the future

Research protocol design for the second round of Young Lives, carried out in 2006, took into account many of the same key considerations that informed the design of Round 1. In addition however, it also had to:

- respond to challenges which emerged from using particular questions and methods in Round 1
- respond to findings which emerged from Round 1
- respond to contextual changes in the research and policy arenas
- reflect the life-cycle issues influencing the two cohorts of study children, now aged around 8 and 12 years old respectively
- reflect differences in policy, culture and research team priorities between the four countries by including more country-specific questions and sections
- take into consideration how the survey would be linked with the first round of the longitudinal qualitative research component, which was planned for the following year.

The design of protocols for Round 2 coincided with changes in the Young Lives team and reflected an enhanced commitment to a strong child focus. The protocol design of the child component in particular was influenced by qualitative researchers with expertise in child development who were new to the team, and the child focus was reflected by asking children directly about their own perspectives and aspirations (Johnson 2008). This raised some methodological challenges. As a Young Lives researcher observed: 'potentially the most important issue about conducting research with children as opposed to adults is that there exists an even greater power differential between adult researchers and child participants than between two adults, due to the lesser power and freedoms of children relative to adults in all cultures' (Johnson 2008: 3). This power

differential was particularly stark in some areas of the study countries, particularly where children were not familiar with being asked their opinion. At its most extreme, it contributed to 23 per cent of missing cases in the Round 1 numeracy test in Vietnam, the majority of which were from ethnic minority children, who had been too intimidated or embarrassed to take the test. In Round 2, the problem was addressed by paying more attention to issues of power when survey teams were trained, and making sure that survey design took into account the need to help children feel relaxed.

A related issue concerned developing culturally appropriate ways of researching life-cycle issues and life skills. As the older cohort children approached adolescence, it became important to develop tools and approaches to finding out about their experiences of and perspectives on a range of issues. The Peru team, for example, devised and tested a new tool for investigating body shape perceptions and preferences among the older cohort children. An answer sheet was designed showing the body silhouettes of girls and boys with figures ranging from very thin to very obese. Children indicated which of the shapes resembled their own, which they preferred and which looked most healthy or unhealthy. This provided information to help understand the self-esteem and emotional well-being of adolescents, as well as their perceptions of the relationship between body shape and health.

In contrast, many of the younger cohort children were approaching the age of primary school enrolment, and the challenge was to find tools to understand children's readiness for school, as well as to measure educational achievement for both cohorts. Selection of tools had to find a balance between using the validated, standardised psychometric tests necessary to contribute to debates on cognitive development, and finding measures that could be applied in developing country contexts. In 2006, prior to Round 2, several cognitive development and achievement tests were piloted in all four countries. These pilot studies led to the selection of the Peabody Picture Vocabulary Test (PPVT) and a Cognitive Developmental Assessment developed by the International Association for the Evaluation of Educational Achievement to assess children's verbal and quantitative ability respectively in the younger cohort. These tools replaced the Ravens Colour Progressive Matrices which had presented difficulties in Round 1. The PPVT, plus two reading and writing items from Round 1, and a Mathematics Achievement Test were selected to assess children's verbal and quantitative abilities respectively in the older cohort. All the tests were translated and back-translated for use in different countries.

As well as the development and selection of new tools, changes in content and structure were made in several parts of the Round 2 survey:

- A preliminary interview was introduced, partly to arrange the household interview but also to collect key pieces of information that were previously in the main household survey, thus reducing respondent burden.
- More detailed background information was sought on household members, including the highest level of education reached, and details of non-resident biological fathers.
- The livelihood section of the household survey was subdivided into five areas to better reflect the connection between livelihood strategies and asset structure, and more indicators were included about who in the household makes decisions about key assets.

- A new section on food and non-food consumption and expenditure was introduced to the household survey to facilitate more extensive analysis of economic relationships, including the measurement of poverty using consumption-based welfare measures.
- The social capital section of the household survey was revised to reflect theoretical developments, and the updated section included questions on how social relationships are formed, perceived and used, access and lack of access to services and information, and participation in collective action.
- The child health and development section of the household survey added considerable detail to the Round 1 equivalent, asking for more information about long-term health problems and disability, immunisation, use of health services and dietary diversity.
- In the older cohort child component, sections were added to find out about parents and household issues, perceptions of wealth, the community and the future and children's aspirations, feelings and attitudes, including investigation of discrimination, self-esteem and self-efficacy through the use of three answer scales created from statements made by children living in extreme poverty around the world. A single section on school and activities included more detailed questions about time use.
- Caregiver mental health questions were replaced with questions on psycho-social well-being which closely reflected those being posed to the older cohort children, partly to see whether the feelings and perspectives of caregivers influence the children they care for.
- The community context survey was restructured into three modules. The first collected updated information on community profile from Round 1. The second collected detailed information on child-specific services, focusing on health, education and child protection. The third was an optional country-specific module.
- In contrast to these change and iterations, one section was not altered in any way. The socio-economic status section of the household survey provides the data needed to construct wealth indices, which are the main instrument Young Lives uses to measure and compare the relative socio-economic status of the households in the sample. Maintaining this section completely unchanged was essential to ensure longitudinal consistency.
- A self-administered questionnaire for the older cohort, which asked questions in areas that young people may have felt uncomfortable discussing with adult researchers, such as psychological well-being, experiences of violence, intra-household issues, tobacco and alcohol consumption, and sexual and reproductive health.
- In Ethiopia, Peru and Vietnam, a section was added to the household survey to collect data about the health, nutrition and education of the younger siblings of younger cohort children, in order to better understand intra-household differences and dynamics.
- Several new country-specific sections were included in the household component, added to the relevant core section. In Ethiopia, these concerned access to and perceptions of credit support and social protection programmes. In India, they focused on a range of programmes aimed at girl children, marginalised groups, rural employment and the abolition of child labour. In Peru, respondents were asked extra questions about access to key services and programmes, and children were given an eye test. In Vietnam, these elements concentrated on an education aid programme, health insurance and experiences of extra schooling.
- Round 3 coincided with the first round of the school component, which provides detailed data about the schools attended by a sub-sample of the Young Lives children, expanding the scope for analysis of the impacts of education.

As was the case in Round 2, alterations and amendments were also made to the core sections of the surveys:

- In response to hypothesised links between climate change and migration, and the considerable rates of migration by Young Lives children in Peru, India and Ethiopia, questions were added to the household and child questionnaires in order to better document the children's mobility and the temporal character of their migrations.
- In response to feedback from teams, the livelihoods section was made more concise. In place of questions on assets and earning that caused embarrassment, confusion and difficulty in recalling detail, a simple seed game developed and piloted by the Peruvian team was introduced in Round 3. Respondents listed all their income sources and then distributed 20 seeds across the list to provide an estimate of the relative importance of each. They were then asked in detail about the amount of income they obtain from the largest source, and this was used to calculate an estimate of the value of other sources according to the distribution of the seeds.
- The social capital section of the household survey was shortened to reflect the fact that while the household was the main source of social capital for the children when they were young, its importance declines as they grow older and establish social networks independent of the household.
- Questions about fast food, physical activity and the tobacco use were added to the health section of the household component, which also included a more comprehensive food security model in order to allow the calculation of a food security status for the whole household.

Round 3: reinforcing the child focus

Carried out in 2009, when the children were around 8 and 15 years old, Round 3 of the survey was the first to include child survey items for the younger as well as the older cohort. The new younger cohort child protocol was heavily based on some sections of the Round 2 older cohort protocol, with core sections on school and work activities, feelings and attitudes and social networks, skills and support adapted to the interests and capacities of the age group. It also included a simple game designed to assess risk-preference, in order to understand whether children who are willing to take risks have better outcomes than other children.

Several other completely new elements were also introduced at Round 3:

- Various adaptations and translations were made to increase the cultural relevance of PPVT tests.
- The older cohort child survey became more detailed in Round 3, to the extent that it was a challenge for researchers to keep the instrument short enough to apply. While more complex questions were asked in some of the core areas, other questions were dropped if analysis of Round 2 showed high levels of non-response or non-applicable answers. In the health section, the response scale was changed from a 3-item scale to a 5-item scale to allow a more detailed analysis and to improve comparability with other studies. New sections addressed migration and asked older cohort girls who had become mothers about their children. As with the younger cohort child survey, a simple game was introduced to allow the categorisation of risk preference.
- The community context questionnaire was shortened to fit better with the rest of the Round 3 survey, gathering information on prices and service delivery, and completing and updating the inventory of schools, social protection and education programmes begun in Round 2.

Looking ahead to Round 4, many fundamental design considerations will remain the same. It will also be particularly important, however, to continue to ensure linkages and effective learning between the longitudinal survey and the school component which began in 2010, and the ongoing longitudinal qualitative component, the third round of which is being carried out in 2011.

References

Attawell, K. (2003) *International Longitudinal Research on Childhood Poverty: Practical Guidelines and Lessons Learned from Young Lives*, Working Paper 11, Oxford: Young Lives <http://www.younglives.org.uk/our-publications/working-papers/international-longitudinal-research-on-childhood-poverty-practical-guidelines-and-lessons-learned-from-young-lives>

Boyden, J. and P. Dornan (2011) *Putting Children at the Centre of Poverty Debates*, Policy Brief 12, Oxford: Young Lives <http://www.younglives.org.uk/our-publications/policy-papers/putting-children-at-the-centre-of-poverty-debates>

Johnston, J. (2008) *Methods, Tools and Instruments for Use with Children*, Technical Note 11, Oxford: Young Lives <http://www.younglives.org.uk/our-publications/technical-notes/methods-tools-and-instruments-for-use-with-children>

Justification documents for Rounds 1, 2 and 3 of the survey can be found at

[http://www.esds.ac.uk/findingData/snDescription.asp?sn=5307 - doc](http://www.esds.ac.uk/findingData/snDescription.asp?sn=5307-doc)(Round 1)

<http://www.esds.ac.uk/findingData/snDescription.asp?sn=6852> (Round 2)

<http://www.esds.ac.uk/findingData/snDescription.asp?sn=6853> (Round 3).

