Introduction

Young Lives is an international study of childhood poverty that began in 2001 to document the lives of 12,000 children – in Ethiopia, Peru, Vietnam, and the states of Andhra Pradesh and Telangana in India – and has continued to trace their outcomes over the past 20 years. The study’s goal is to generate high-quality evidence to help policymakers design programmes that make a real difference to poor children, youth and their families.

Young Lives is the only cohort study in the world that conducts mixed-methods longitudinal research simultaneously in four countries with comparable data collection instruments and timing. And it is an observational study, which is different from experiments or interventions.

Implementation of this highly complex study has involved many methodological and operational decisions, innovation, and ongoing reflection. It has provided us with lessons on building and maintaining research partnerships, designing and conducting multi-disciplinary and multi-country research, managing and analysing complex data sets, and communicating research findings to a variety of target audiences.

This synthesis has been produced as part of the Methodological Learning and Lessons from Young Lives project, funded by the Economic and Social Research Council (ESRC), that aims to share learning, strengthen capacity, and improve effectiveness in the conduct of longitudinal research in low- and middle-income countries. It considers the methodological challenges involved in undertaking a longitudinal study and provides learning for others engaged or interested in similar forms of research.

The synthesis aims to highlight the variety of methodological features that make up the Young Lives research design and describes their implications for investigating different aspects of children’s development across the early life course. We hope that the insights captured here will contribute to a growing body of evidence and also encourage anyone considering these methodologies to apply them to their own research.
Longitudinal Methodology

The longitudinal research design is one of the major strengths of the Young Lives innovative and comprehensive methodology. Tracking the lives of the participating children for the past 20 years – from early infancy into young adulthood – has enabled us to identify how children’s early-life circumstances have shaped their outcomes as young adults and discern which environmental and individual factors have had the greatest influence on their well-being and development. Such comprehensive outcomes cannot be achieved in a systematic way by short-term studies.

For example, utilisation of longitudinal methodology enables us to detect when differences between children begin to emerge, identify what drives those changes, and examine the role of policies in reducing inequalities. This requires employment of a systematic approach from the outset and often involves asking participants the same questions in the same way over many years to track changes and ensure comparability over time. The longitudinal research used by Young Lives requires a balance between consistency and flexibility as the children grow older and also as new research and policy questions emerge.

Growth and Nutrition

Despite significant advances in children’s survival and development, child malnutrition remains a serious problem globally. Human growth is especially susceptible to influences in the first 1,000 days of life starting at conception. Preventing early life growth deficits – including stunting and wasting – is a major policy aim. Young Lives’ longitudinal data, which monitor and detect children’s growth starting in early childhood, has added nuance to this current knowledge about the long-term effects.

Some children in the study were able to recover from early stunting even up to the age of 15. Importantly, their recovery was associated with improvements in educational outcomes and other aspects of their development. At the same time, other children who had grown normally for the first 12 months of their life subsequently faltered to become stunted in middle childhood – and scored worse on certain tests than children who were not stunted. The longitudinal design of the study made these findings on growth patterns and their links with a range of development outcomes at different ages possible. The evidence shows clearly that early health and nutrition investments are vital, but that they must be sustained across the first two decades of life. In other words, ‘early is best but it’s not always too late’. Adolescence presents an important second window of opportunity for policy intervention.

FURTHER READING


CASE STUDY

IN PRACTICE

Andreas Georgiadis
Senior Lecturer at the Business School of Brunel University and Young Lives Research Associate

We’ve been able to look at children’s growth patterns at different ages and compare girls and boys from different backgrounds over time. When using height as a proxy for health, our evidence suggests that household wealth in preadolescence disproportionately benefits the male population in Ethiopia, India, Peru, and Vietnam. Moreover, the associations between growth after age eight and the test scores in maths and reading at age 15 are statistically significant for boys but not for girls.

Le Thuc Duc
Senior Researcher at CAF-VASS1 and Principal Investigator, Young Lives Vietnam

1 Centre for Analysis and Forecast, Viet Nam Academy of Social Sciences (CAF-NASS) http://en.vass.gov.vn/Pages/Index.aspx
Dual-Cohort Design

Young Lives is a dual-cohort study designed to collect information from the same sample of children, divided into two age groups born seven years apart (1994 and 2001). Intervals between survey rounds are set at three to four years to minimise the burden on respondents and maximise comparability across the two cohorts, with the cohorts being surveyed at the same ages, though at different points in historical time.

With this design feature, Young Lives can compare how children in the sample have fared at the same ages, given differences in the environments in which they live. This cohort-sequential analysis allows us to show the impacts of events or policy changes that have affected one cohort rather than the other.

Uncovering the Short-Term Impacts of COVID-19

This cohort-sequential design has enabled us to demonstrate how social and economic conditions have improved for all of the children in all four countries during the 20 years that Young Lives has been underway. Comparing older and younger groups’ experiences and outcomes at the same age has shown that at every age, the Younger Cohort has fared better than the Older Cohort in nutrition, health, education and work – until now.

The two-cohort, longitudinal structure of the data allowed us to compare the outcomes of young people aged 19–20 (Younger Cohort) who were living through the pandemic in 2020, to those of an Older Cohort when they were surveyed at the same ages in 2013. Up until the pandemic, the Younger Cohort had fared better in many ways than their older counterparts; namely, higher education attainment, working fewer hours while of school age, and higher self-reported well-being. Using the comparative cohort approach, we could show that the pandemic has led to a reversal of fortune for the Younger Cohort for the first time in the study’s history, although we do not know if these short-term impacts will persist in the medium- and long-term.

For example, when we compared economic shocks and school enrolment between the two cohorts, we found that in both cases, at age 19, the Younger Cohort was more likely to report household job and income loss and experience a significant fall in enrolment compared to the Older Cohort in all countries. In both instances, the differences were largest in Peru, a country devastated by COVID-19 and smallest in Vietnam, which has had exceptionally low levels of infection.

Further Reading


Mixed-Methods, Cross-Disciplinary Methodology

One of the strengths of Young Lives is that it addresses the study of childhood poverty using a variety of qualitative and quantitative research methods that draw on different disciplinary perspectives – including economics, anthropology, developmental psychology and education. Not common in longitudinal research in low- and middle-income countries, this mixed-methods, cross-disciplinary approach (pioneered by Young Lives alongside GEAS and GAGE\(^3\)) has helped us to broaden and deepen the scope of our enquiry and ensure we reach multiple audiences. For example, while the quantitative research uncovers generalisable trends and associations between determinants and outcomes, the qualitative research is ideally suited to dig deeper into children’s lived experiences, actions and beliefs in particular contexts. Adding a cross-disciplinary focus to the mix ensures complementarity and has enabled the study to examine young people’s lives from different angles and to use different kinds of data with different strengths and weaknesses.

Understanding Children’s Contributions to the Household Economy

Applying mixed-methods has helped Young Lives to develop a deeper understanding of the pressures on children and their families – and the options available to them.

Young Lives researchers analysed quantitative and qualitative data from Ethiopia to fully understand the allocation of work between different household members in response to shocks, such as drought and job loss. The aim was to determine what contributions children make, whether there were differences between girls’ and boys’ work, and how children’s contributions affected intergenerational relationships. Whereas quantitative data provided information on time use among boys and girls and linked this to household circumstances, including exposure to shocks, the qualitative data highlighted how children experienced and felt about work, schooling, and leisure activities, offering a more nuanced understanding of the role of children in the household economy.

The findings not only established that children’s work is largely shaped by age and gender, but that it also involves considerable flexibility and varies according to household composition, birth order and sibling composition. In addition, there were exceptions, such as when girls or boys undertook work normally associated with the other sex or another household member, indicating that children’s work in this context is affected both by poverty and by dynamic household circumstances.

FURTHER READING


IN PRACTICE

“Surveys confirm trends and reveal puzzling issues and these are explored, illustrated and nuanced through qualitative research which brings alive different young people’s voices, makes sense of their varied experiences, and provides insights into their personal endeavours and social relationships. Together, these complementary approaches have helped build a full, richer and more convincing picture of young peoples’ lives.”

Alula Pankhurst, Pankhurst Development Research and Consulting and Country Director, Young Lives Ethiopia

“The longitudinal sentinel site survey design of Young Lives enabled panel data to be collected from both households and schools across a diverse set of contexts in each study country. In turn, this permitted education researchers to conduct comparative value-added analysis, generating novel insights and lessons from four developing country education systems. These studies were the first of their kind and have inspired design elements of current cutting-edge research such as a number of studies by the RISE programme.”

Caine Rolleston, Associate Professor at University College London and Young Lives Research Associate

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\(^3\) Global Early Adolescent Study and Gender and Adolescence: Global Evidence.

\(^4\) Research on Improving Systems of Education (RISE) programme https://riseprogramme.org
Comparative Design

The four focal countries of the Young Lives study were selected from each of the major developing regions of the world and as such, offer a diverse picture of children’s experiences of and responses to poverty, highlighting the different ways in which poverty affects children in specific communities, regions and countries.

Being a comparative study has enabled Young Lives to report on trends, such as improvements in household wealth and service access, and to explore how patterns are similar or different across and within those countries. Cross-country evidence from a large sample gives us greater confidence that findings from one country may apply to other countries with similar circumstances. In-country comparisons may be about children in different social or economic groups, or comparing households located in different sites, and from this evidence we consider where similar patterns might apply in other countries too.

However, Young Lives’ comparative research design is not without its challenges as it means undertaking research in multiple languages and with varied population groups who do not necessarily share equivalent concepts and whose experience, worldview and levels of education differ widely. Nevertheless, research of this kind, within and between countries, is essential to understand and address deepening inequalities and the consequences of poverty for children with different characteristics and in different situations.

Comparative Research:
Messages for Global Learning

Undertaking research with children and families in four countries has enabled Young Lives to track the effects of specific social policies over time; for example, those relating to the consequences of increased enrolment in school and the variations in schooling effectiveness.

In 2018, Young Lives researchers compared the effectiveness of the different school systems in the four study countries at delivering quality education and combating the impacts of child poverty. They also examined respects in which school systems may fail to ensure quality learning for all and possibly reinforce poverty-related inequalities. Most striking was the researchers’ discovery of the variability of basic literacy rates across the countries, which in some cases was very low. In Ethiopia, four in five of the Older Cohort children could not read a simple sentence at eight years old; however, in Vietnam and Peru more than four in five children could read sentences by the same age. These findings, together with the relatively limited evidence of improvements between cohorts over time, helped to raise vital questions about what kinds of policy intervention would be most likely to amplify the rate of progress towards foundational literacy skills for all, in a way that is efficient in terms of education investment.

Further Reading
A Holistic Model

Young Lives research is interested in understanding the ‘whole person’ and this holistic stance recognises that human well-being and development have multiple dimensions. Young Lives is therefore different from the many studies of children and adolescents that look at a single issue such as nutrition or health.

Young Lives’ rich data set covers aspects of children’s nutrition, health, cognition and psychosocial attributes, as well as information about their education, work, attitudes, and family and household circumstances. The study’s holistic approach pays attention to the connections between children’s physical, social and emotional well-being, as well as their cognitive learning and skills, and shows the cumulative effect of these interactions over time. Combining a holistic approach within a longitudinal study allows researchers to understand how the different aspects of development and well-being influence one another from infancy to early adulthood.

Investigating the Link Between Poverty and Children’s Psychosocial Competencies

The holistic model employed by Young Lives offers novel evidence on the association between children’s material circumstances and their wider well-being. For example, when the children were 12 years old, a correlation was found across the four countries between material poverty and children’s psychosocial attributes (self-efficacy, sense of inclusion, self-esteem and educational aspirations). This is an important finding because it is increasingly understood that psychosocial attributes can affect children’s functioning and adaptation as adults, in turn shaping their future socioeconomic status.

Caregivers’ education and children’s school participation were found to be important factors influencing children’s psychosocial attributes. Holistic findings such as these point policymakers to important areas where they can intervene to help overcome the transmission of poverty across generations and over time.

FURTHER READING


CASE STUDY

IN PRACTICE

“Something special about Young Lives is its holistic nature, and how it collects information at the individual, household and community levels. This gives us the chance to investigate child development and well-being through different lenses. Both individual attributes and background circumstances shape children’s opportunities and aspirations. They also impact on growth, health, cognition, learning and future well-being. Tracing the interaction of these diverse aspects over time allows us to demonstrate how deprivations in one area of development are transmitted to others, with cumulative effect.”

Marta Favara
Deputy Director, Young Lives at Work, University of Oxford
Diversity of the Young Lives Sample

Recognising that there are multiple forms of discrimination and disadvantage, the engagement of children from diverse locations and social and wealth groups in each country enables Young Lives to identify the source of different types of inequality, and when they overlap. In a longitudinal study, we can find out when certain inequalities emerge and whether they get bigger or smaller, thus showing who is most disadvantaged over time.

Even though the Young Lives sample is not nationally representative, it is very diverse in terms of the socioeconomic backgrounds of the girls and boys it follows. This makes it possible to explain differences in children’s outcomes, not only by looking at economic status, but also gender, ethnicity, language, and (in India) caste.

The study started out in over 80 research sites – and now covers many more due to migration – so it is also able to compare the outcomes and pathways of children in different locations, with particular attention to the distinction between urban and rural settings. This means we can ask whether the discrimination and disadvantage faced by children differ depending on location.

CASE STUDY

Poverty and Gender Inequality

Sometimes Young Lives findings make us question our assumptions. Many researchers have used Young Lives data to understand the differences between boys and girls, looking, for instance, at education, work and household responsibilities, and marriage and family formation. Applying an intersectional approach means seeing how gender intersects with other aspects of children’s backgrounds.

Our researchers found that disadvantages based on geographic location, ethnicity or caste or poverty levels are larger and more consistent across childhood than differences based solely on gender. However, these factors can compound gender inequalities, explaining why girls living in the poorest households in rural areas are often the most disadvantaged.

Instead of devising narrow strategies to tackle gender inequality, our evidence shows that policy interventions also need to address poverty and broader structural inequalities in order to improve life chances for both poor girls and poor boys.

FURTHER READING

Data Harmonisation and Linking

Many longitudinal studies in low- and middle-income countries find themselves struggling with logistical and resource constraints. They can be confined to relatively small samples and limited data points and often require improvements in consistency, comparability and integration. While this applies to all forms of data, longitudinal research confronts specific challenges, due not only to the technical and logistical complexity, but also to the cost and skills requirements of panel data collection and analysis, and the mismatch between the time involved in generating robust findings and policy stakeholders’ wish for instant evidence.

While limitations of both the data harmonisation and linkage process exist, Young Lives has shown how they can both be important, cost-effective tools for addressing data constraints. Young Lives researchers have found that they can increase the sample size and statistical power of the study, thus strengthening the generalisability of the findings and expanding opportunities for innovation and the possibility that policy questions are answered.

Opportunities Created by Data Linkage: Child Nutrition in Peru

Recognising the risks to child health, growth and development in areas with poor public health infrastructure that are exposed to low levels of hygiene and extreme weather events has been a major priority for Young Lives’ investigations into the community-level determinants of child nutrition and development.

In Peru, Young Lives tested the hypothesis that particularly low temperatures (below long-term averages) experienced in utero and during the first 36 months of life adversely affect infants’ nutritional status. The researchers used differences in exposure to temperature levels across children within clusters, generated by differences in date of birth, in areas where frosts are widespread. Responses to the community questionnaires revealed that around half of the Young Lives households in Peru situated at high altitudes had been affected by frosts. Study data were matched with temperature data provided by the Peruvian Institute of Meteorology (SENAMHI) weather stations located either in the selected clusters or in nearby clusters. It was found that while exposure to unusual weather variations can affect child development, recovery is possible in some dimensions and the impact can vary by gender.

FURTHER READING


IN PRACTICE

“In Peru, a country prone to climatic shocks, it’s been really useful to be able to match Young Lives data to information from weather stations. By matching at district level, we were able to quantify the impact of weather shocks on child development, and found that exposure to low temperature shocks has a negative impact on early-life nutritional status. The impact on nutrition doesn’t last long, but its impact on cognitive skills for girls remains years later. Nowadays, the government is investing more in trying to reduce the physical exposure of children to frosts in the highlands.”

Alan Sanchez
Senior Researcher at GRADE and Principle Investigator, Young Lives Peru
Teamwork, Governance and Multi-Country Leadership

As a large, complex and demanding programme, Young Lives requires careful management and governance, and establishing this at every level within the four focal countries is one of the most important ingredients of our success. Key to this has been the many people who have contributed to the longevity and continuity of the programme – both of which are fundamental to our work – from the children, their families and communities in the study to the research teams, country offices and the core management team implementing the programme.

While our strategies to address the challenges and opportunities concerning governance and impact may have evolved over time, the organic nature of impact and the serendipitous character of policy engagement has remained the same. Staying relevant is an ongoing test for research, particularly in countries where political agendas and priority areas are in constant flux. By setting up country offices led by experienced Country Directors, Young Lives has been able to simultaneously conduct research and engage closely in national policy debates.

The means to influence policy has been wholly due to the agility of Young Lives research teams and their ability to foster long-term connections with partners in the media, civil society and government. A new receptiveness towards research for evidence-based decision making and the increasing role of capacity building to ensure research uptake have also played their part.

Influencing Policy to Reduce Child Marriage in India

In October 2017, India’s Supreme Court issued a landmark judgement ruling that a man who has sex with his wife when she is less than 18 years old, is committing rape. Evidence from Young Lives longitudinal data and national census analysis by the Young Lives India team provided inputs that contributed directly to this important change in the law, aiming to reduce child marriage.

This contribution happened through continuous interactions with policymakers over a long period of time, backed up by the strength of data and analysis enabled through the team’s research. The team began a series of dissemination meetings on their findings that relate to adolescence over seven years ago, initially pulling together a small core group of people working on adolescence and child marriage from across government.

At one of these meetings, the chairperson of the National Commission for Protection of Child Rights (NCPCR) was struck by the alarming situation on child marriage and asked for the analysis to be extended using the 2011 census data. The result was a powerful joint report on child marriage by Young Lives and the NCPCR that was shared with influential parliamentarians and used as evidence for parliamentary questions relating to child marriage by the Ministry of Women and Child Development.

In June 2020, the Government of India established a task force to consider increasing the legal age of marriage for women from 18 to 21 years of age. Young Lives evidence is again making an important contribution to this debate, at a time of huge social and economic upheaval caused by the COVID-19 pandemic.

IN PRACTICE

“...Young Lives is tasked with producing high-quality research evidence and applying it in the service of policy and intervention reform globally, regionally and at national and subnational levels in the study countries. This huge and complex undertaking requires a robust research design, sound data collection, management and analysis systems and tailored research messages. All of this is made possible by the generosity of research participants, long-term partnerships with highly engaged study country institutions and a shared leadership structure and vision, in which Country Directors, Principal Investigators, team leaders, communication, managerial, administrative and other staff bring their unique skills and insights to the table.”

Jo Boyden
Young Lives Research Associate and former Young Lives Director, University of Oxford

FURTHER READING

Research Ethics

Navigating different frameworks, local contexts, power relations and clearance boards are just some of the ethical and practical challenges facing researchers who adopt an ethical approach to their research. Longitudinal research can magnify ethical concerns and new questions arise; for example, child protection and safeguarding issues have evolved over the course of the Young Lives study and as the children grew into adulthood. Unsurprisingly, managing the expectations of research participants in this long-term observational study has been a challenge but alongside this, ensuring that the ethical principles of justice, respect and avoiding doing harm are upheld has been a constant.

Young Lives takes a positive view of research ethics as enabling high-quality research, and the programme has developed a shared understanding of what this entails. Its approach to ethics has been developed collaboratively with the research teams, following fieldworker training and piloting and reports from fieldworkers after each round of visits to the study sites.

An outcome of this process is that Young Lives has contributed to a number of debates about research practices and the ethics of longitudinal research with children by sharing the knowledge and experience it has gained throughout the years.

COVID-19 and the ‘Ethics of Disruption’

In March 2020, Young Lives was poised to embark on the latest round of household surveys when the extent and severity of the COVID-19 pandemic became evident. In the midst of huge uncertainty, the team leading the work had to urgently weigh up and mitigate the risks of continuing longitudinal research at a time when a global pandemic had altered the ethical and practical landscape for conducting social research. We found ourselves uniquely positioned to provide information about the impacts of COVID-19 on young people; however, we were also faced with tremendous ethical responsibility to the study’s cohorts and their families for whom the effects of the crisis will be long-lasting.

COVID-19 has instigated an ‘ethics of disruption’ for social researchers across the world. This has led Young Lives to consider: (i) managing research relationships and reciprocity within an observational study design; (ii) maintaining methodological continuity and consistency across time; and (iii) balancing the need for timely evidence against the longer-term perspective.

Further Reading

SECTION 3: HELPFUL RESOURCES

Longitudinal Methodology


MULTIMEDIA: Accounting for Intergenerational Social Mobility in Low- and Middle-Income Countries, video of Fabian Koening and Jakob Schwab discussing their paper on social mobility within developing countries and how they use Young Lives data to present their conclusions, 11 December 2020.

MULTIMEDIA: Sweet are the Fruit of Adversity? The Impact of Fathers’ Death on Child Non-Cognitive Outcomes in Ethiopia, video of Rozana Himaz discussing her paper ‘Sweet are the Fruits of Adversity’ that uses Young Lives data from Ethiopia to investigate how the death of a father impacts children as they grow into young adults, 2 March 2021.


MULTIMEDIA: Inequalities in Adolescent Learning, Elisabetta Aurino, Jasmine Fledgjerohann and Sukumari Velakkal discuss how they used Young Lives data from India to examine how food insecurity might impact education pathways, 28 July 2020.


Dual-Cohort Design


Data Harmonisation and Linking

PROGRAMME INFORMATION: Use Our Data, Young Lives webpage.

This Young Lives synthesis has been written by Clare Gorman in collaboration with Jo Boyden, Gina Crivello and Julia Tiftod.

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Young Lives is an international study of childhood poverty and transitions to adulthood, following the lives of 12,000 children in four countries (Ethiopia, India, Peru and Vietnam) since 2001. Young Lives is a collaborative research programme led by a team in the Department of International Development at the University of Oxford in association with research and policy partners in the four study counties. The UK Department of International Development (DFID) provided core funding to Young Lives from 2001 to 2018 and the Foreign, Commonwealth & Development Office (FCDO) is funding the ‘Young Lives at Work’ programme between 2020–2024.

The views expressed in this report are those of the authors. They are not necessarily those of, or endorsed by Young Lives, University of Oxford, ESRC or other funders.