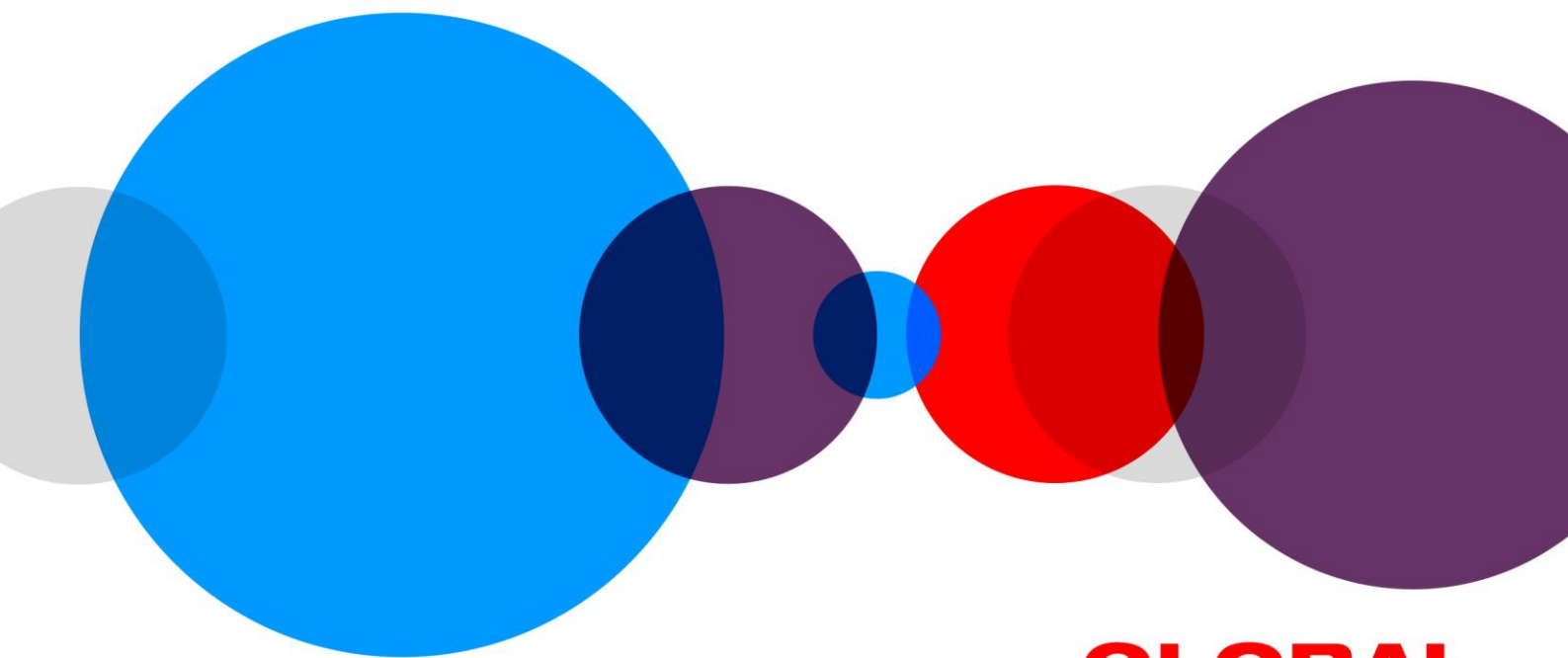


# METHOD GUIDE 5

## Conducting qualitative and quantitative research with children of different ages



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**GLOBAL  
KIDS  
ONLINE**



[www.globalkidsonline.net](http://www.globalkidsonline.net)

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# GLOBAL KIDS ONLINE

Global Kids Online is an international research project that aims to contribute to gathering rigorous cross-national evidence on children's online risks, opportunities and rights by creating a global network of researchers and experts and by developing a toolkit as a flexible new resource for researchers around the world.

The aim is to gain a deeper understanding of children's digital experiences that is attuned to their individual and contextual diversities and sensitive to cross-national differences, similarities, and specificities. The project was funded by UNICEF and WePROTECT Global Alliance and jointly coordinated by researchers at the London School of Economics and Political Science (LSE), the UNICEF Office of Research-Innocenti, and the EU Kids Online network.

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# ABSTRACT

Even from young ages, children can provide rich and accurate information about their lives. They can also help to tell us which questions we should be asking them. But there are specific issues to consider when carrying out research with children in order to obtain the most accurate and meaningful information about their lives, attitudes and perspectives.

This Guide outlines these issues, which include question comprehension, recall of events over different time periods, compliance or willingness to provide the expected answer, salience of the information sought, and peer influences. It maps how they evolve with the age of the child and the implications for the design of research instruments. It also reflects on specific issues that may arise when researching children's lives in the global South and in relation to digital technologies. The Guide emphasises the need for thorough formative research and pre-testing, in the context of an ethical approach that treats children as active research participants. It provides some examples of good practice in researching children, as well as specific guidance and a short summary checklist.

# INTRODUCTION

There is a substantial body of studies outlining research with children. However, although this evidence highlights issues to be aware of when developing and adapting specific research instruments (such as questionnaires, probes for qualitative research guides etc.) for children of different ages, there is less guidance on general approaches for research with children (although see Christensen and James 2000; Curtin, 2001; de Leeuw et al., 2004; Greig et al., 2007; Tisdall et al., 2009).

Up-to-date summaries of best practice in quantitative survey research are particularly scarce. General good practice in research with adults is, of course, a necessary precondition for research with children, and there are helpful syntheses of advice for qualitative and quantitative research with adults. There is also advice on developing questionnaires for adults, including the design of questions, questionnaires and interview schedules (see Bradburn et al., 2004; Tourangeau et al., 2004).

**“A number of researchers have challenged the weight given to the specificity of childhood in research methods and approaches.”**

A number of researchers have challenged the weight given to the specificity of childhood in research methods and approaches (Harden et al., 2000; see also the discussion in Leonard, 2016). However, there are specific issues to consider when conducting research with children, even if children (including young children) are accepted as reliable informants about their own lives (Curtin, 2001; Leonard, 2016). There are likely to be additional factors to consider in the global South and in relation to internet use (see also Methodological Guides 1, 2 and 3). The emphasis in much of the literature on researching children’s lives in context (with social structures such as school and work interacting with development age) does, however, facilitate translation of the more general insights on researching children across different settings.

This Guide provides a brief account of how research with children differs from research with adults. It refers to children from early years (around 5–7 years) to mid-to late-teens (around 14–16 years). Age provides a useful proxy for life course and developmental stage, although there is substantial variation in development among children of a similar age. The Guide outlines best practice in research with children, particularly in relation to survey research. It also offers guidance on issues to consider when conducting research with children.

**“The Guide outlines best practice in research with children, particularly in relation to survey research. It also offers guidance on issues to consider when conducting research with children.”**

The Guide is structured as follows: the next section outlines key points for reflection, which provide background and a broad context to the more concrete issues and guidance that follow. These points set out a series of questions that it may be important to ask before translating the broader evidence on researching children to contemporary research into children’s use of digital technology in a global context.

The following section, then summarises the main approaches to research with children, providing a brief survey of the relevant evidence and discussing the importance of preparatory work. This is followed by discussion of an example of good practice, showing how the areas highlighted in the previous section are implemented, and emphasising that good practice is continually updated. While focusing on one case for simplicity, context is provided by mention of similar studies. Some useful open-access sources are listed in the subsequent section. The final section provides a short checklist of key points to consider when undertaking research – particularly survey work – with children. There is an additional checklist, which provides a summary of research approaches linked to the developmental stage of children.

# KEY ISSUES FOR REFLECTION WHEN INITIATING RESEARCH WITH CHILDREN

It is still common practice in many settings to obtain information about children's behaviours and practices from others, rather than from children themselves. This may have advantages – and be most appropriate – in certain circumstances. For example, it may be simply too challenging for children to supply answers to questions. This could be through lack of developmental maturity, for example, when questions require reflection, thinking from another perspective, dealing with complex or lengthy recall periods, or engaging with concepts that cannot be expressed in sufficiently age-friendly terms.

Tourangeau et al. (2004) have popularised a model of question response that goes through four stages: (1) comprehension (understanding the question); (2) retrieval (being able to retrieve the relevant information); (3) judgement (selecting what the appropriate information is for the question asked, given the response options); and (4) reporting (providing the answer).

**“It is still common practice in many settings to obtain information about children's behaviours and practices from others, rather than from children themselves.”**

In all these stages children, particularly younger children, may encounter more difficulties than adults. It may also be appropriate to ask parents when dealing with topics that are sensitive for older children (especially teenagers), who are more susceptible than younger children to social norms and peer pressure. For example, asking children about topics such as physical development (including puberty) can be acutely embarrassing for them.

Adults may also have better information or recall about family circumstances, activities or events (e.g., the timing of a death or a marriage). At the same time, children can be reliable informants about the specifics of their lives, even from young ages (Curtin, 2001; Greig et al., 2007). And for some types of information children are better informants than their parents. For


example, children may provide more accurate information on what they eat during the day (de Leeuw et al., 2004).

**“The boundaries of what it is possible to research with young children are continually being pushed back, in terms of both imaginative qualitative approaches...”**

The boundaries of what it is possible to research with young children are continually being pushed back, in terms of both imaginative qualitative approaches – including those that exploit technology to elicit responses – and quantitative survey instruments. Direct measures of children's cognitive and physical development through, for example, assessment and measurement of height and weight are also increasingly common in non-specialised surveys. Like questionnaires or interviews, however, these activities also need to engage children. Approaches now emphasise the voluntary collaboration of children, rather than these activities being exercises that are 'done to' children. And children clearly have the capacity to assent to (and dissent from) participation from young ages (Harden et al., 2000; see also Method Guide 2). The first questions are therefore:

*Who is this information about children best gained from? If the question is more appropriately asked of a related adult, are there nevertheless ways in which it might be adapted to ask the child him or herself? Is it possible to seek complementary information from children and parents?*

In deciding what questions to ask, adult researchers often focus on areas that are salient from their own perspective. This can lead to a focus on risky and harmful experiences and behaviours. In the field of online research, for example, there may be a focus on issues of risk and harm in internet use, rather than on how the internet is used and perceived by children themselves. There are many positive ways in which



digital technologies can provide opportunities for children (see also Method Guides 6 and 8). The conceptualisation of children as simultaneously ‘victim’ and ‘threat’ has a long history (Hendrick, 1994). This tendency (to construct children as victims and/or threats) is particularly common in relation to more marginalised or vulnerable children; research with such children may contribute to constructing them as victims and threats even as it makes them visible. This may happen even when research motivations are apparently benign, intending, for example, to give a ‘voice’ to abused or neglected children. Such constructions can in turn reinforce the marginality of these children, especially if their participation is not conducted as a negotiated research relationship (see also Method Guide 2).

**“Legal maturity is typically defined through age; but developmental maturity may be much more individual- and context-specific.”**

In the global North, research has historically targeted poor children and those who have suffered distressing experiences (Hendrick, 1994; Ridge, 2002). Both qualitative research with children and survey instruments intended to capture children’s experiences often focus on negative aspects of their lives (risky behaviours, bullying, early sexual initiation) rather than the more positive experiences that may characterise their daily lives. This may be justified in terms of providing an evidence base for policy, but it may sustain a particular understanding of vulnerable childhoods and reinforce (or even lead to) children’s internalisation of marginality and disempowerment.

**“Identifying the positive ways in which children engage with their lives and interpret their experiences can also have important policy implications.”**

A focus on negative experiences may also raise important ethical issues (see also Method Guide 2). On the other hand, identifying the positive ways in which children engage with their lives and interpret their experiences can also have important policy implications. We can see this in debates around the measurement of ‘happiness’ or life satisfaction when

evaluating children’s overall well-being (ONS, 2014; UNICEF, 2007).

**“Markers of ‘difference’ from the dominant society may or may not be shared by researchers and their child subjects.”**

Any research instrument should therefore be reviewed to see whether it provides a negative perspective of children’s lives and reproduces stereotypical expectations. If it does, it should be rebalanced to reflect both positive as well as negative experiences, including, for example, mundane uses of the internet related neither to risk nor even to formal learning.

The objectification of children as research subjects through their continued construction as victim or threat may be heightened if perceived vulnerability is seen to be a specific property (or experience) of children from the global South. This is a common theme in discussions that start from the perspective of the global North. It may also be a consideration for research on internet use or online access among children. There may be a tendency to focus on the risks and negative implications of internet use and access, and to dissociate these from the wider contexts in which such risks arise (see also Method Guide 7). This leads to the questions:

*What assumptions are implicit in the proposed research instruments? Do they imply specific vulnerability of children that is inappropriate to the context? Do they serve to construct online behaviours as individualised risks rather than relating them to the wider context?*

A related issue is that of ethnic, religious, cultural or linguistic diversity within a country. Such markers of ‘difference’ from the dominant society may or may not be shared by researchers and their child subjects. In areas where there are tensions between different groups (such as in conflict zones), children may relate differently to adults who are recognised as ‘other’. Similarly, researchers may (even if unconsciously) enter research environments with minority or marginalised groups with particular assumptions or expectations (e.g., about the different treatment of boys and girls, or the acceptability of particular activities, including use of digital technologies). These

will shape their interactions with the child subject and hence the responses they obtain.

While there is extensive literature on interviewer effects on adults' responses (see, for example, Davis et al., 2010), we know very little about how the characteristics of interviewers may affect children's responses. This is an important area to understand further, particularly given existing power dynamics within the interviewer-child relationship. We should therefore ask:

*What are the possible consequences of differences in key characteristics between researchers/interviewers and their child research subjects, where such differences are highly salient, such as ethnic differences in an area of ethnic conflict?*

Just as adults may 'impose' their interests or concerns on children's lives, so guidelines developed for practice in the global North may not translate to the global South. They may impose inappropriate assumptions about, for example, the link between certain chronological ages and life stages. The literature abounds, for example, with reference to 'pre-schoolers' and 'elementary school children', which are based on assumptions of ages at which children attend school and on universal attendance. Guidelines and models of practice may also make assumptions about appropriate engagement with girls and boys; about the significant adults in children's lives; and may have expectations about patterns of family co-residence and parenting.

**“Legal maturity is typically defined through age, but developmental maturity may be much more individual- and context-specific.”**

Legal maturity is typically defined through age, but developmental maturity may be much more individual- and context-specific. For example, in the UK, age assessment of asylum-seekers who are minors has been the subject of numerous judicial reviews. Responsibility towards these minors is based on their age, but practitioners may dispute their age because their appearance or the ways they behave are associated with adults. It has been pointed out in judgments that expectations about how minors 'should' appear and behave cannot be used to dispute their

age. Such children's experiences may have made them seem older than their years (see, for example, Bondy et al., 2015).

The implication is that some children 'grow up' fast because of expectations or necessity. At the same time, they still merit the support associated with their legal age and minority status. Therefore, further questions to ask of any given research guide or survey instrument are:

*Are assumptions about behaviours, practices and experiences at specific ages contained in the instrument relevant for the context in which it will be deployed? What are the relevant expectations for children's structural position (e.g., school attendance) at particular chronological ages in the particular context? And are there social, legal or contextual factors (e.g., around age at marriage) that may contradict assumed connections between age and development or maturity?*

**“Just as adults may 'impose' their interests or concerns on children's lives, so guidelines developed for practice in the global North may not translate to the global South.”**

Areas of concern in the global North, including (potentially inaccurate) assumptions about how children, families and societies function in the global South, tend to shape guidelines developed for worldwide use. Thus, there may be implicit or explicit expectations about who 'should' be monitoring children's online behaviour that are not appropriate to the context, and there may be translation of legal, age-related concepts of childhood that do not apply. This report is not immune from such risks and should be read with that caveat in mind.



# MAIN APPROACHES

## Agency

Research into childhood has over the last few decades emphasised that child research subjects should be treated as agents: children should be regarded as active participants in the research process rather than as those on whom research is done. They should be respected as being able to report on their own lives, behaviours and experiences. This has been reinforced by the United Nations Convention on the Rights of the Child (UNCRC), which stresses the importance of children expressing their views on matters that affect them, and by national legislation informed by the UNCRC. This has implications for how children are involved in shaping research (discussed further in Method Guide 8), and in how they are included in research about their lives, the main subject of this Guide.

The 'new sociology of childhood' (see, for example, James et al., 1998) highlights the ways in which children have, in both policy and research, tended to be regarded as 'not-adults'. There has often been an emphasis on what they lack or an anticipation of their transition to adulthood rather than a focus on their lived experience. Some of the issues regarding children's status as 'adults in waiting' are particularly acute for children who are marginalised, such as children in poverty (Redmond, 2008; Ridge, 2002), children with disabilities (VIPER, 2013), or other groups of more marginalised children (such as ethnic, religious or linguistic minorities).

The new sociology of childhood has therefore stressed the need to acknowledge children as 'being' rather than 'becoming'. 'Being' is defined as subjects existing in the present with agency, whereas 'becoming' refers to the situation where their transition to the 'full' state of adulthood is anticipated, and they are judged as relatively lacking in competence.


This recognition of the social construction both of 'childhood' and of the boundaries marking childhood from adulthood has influenced approaches to research about children, with an emphasis (in qualitative research) on participatory approaches (see also Method Guide 8). Dominant approaches now put the child at the centre of the research process, able to

define the terms of the discussion rather than being the unspeaking object of concern or investigation (see, for example, Ridge, 2002; VIPER, 2014).

Quantitative research and surveys have been somewhat slower to engage with the child as agent rather than passive subject, but they are also moving in this direction. This includes asking children about their lives from young ages, and involving them in preparatory research. The discussion below of age-related research, question development and formative research reflects these moves towards more child-centred quantitative research, and are further illustrated in the case study in the next section.

**“Children should be regarded as active participants in the research process rather than as those on whom research is done.”**

Researchers are often concerned with enhancing research participation through appropriate ways of eliciting information. These might include pictures or drawings or vignettes, or words and games (see, for example, Curtin, 2001; Read & Fine, 2005; Richards, 2012). There is also greater interest in increasing children's involvement in the design and dissemination of research. The National Children's Bureau (NCB) guidelines (Shaw et al., 2011), for example, emphasise the different levels and points at which children can become involved in research in a way that echoes Arnstein's much-cited ladder of participation (Arnstein, 1969). According to Arnstein's model, there is a hierarchy of ways in which individuals can participate, ranging from non-participation to citizen power. While the model was developed for a different purpose, the hierarchy can prompt discussion about how far – and with what consequences – children's participation can be re-oriented towards a more collaborative approach. Within such an approach, children are considered able to inform research questions as well as to provide feedback on them. They can also be involved in communicating research findings. However, there are limits to how far they can realistically and legitimately be involved in conducting and analysing research (Harden et al., 2000).



Journals such as *Children & Society* include numerous illustrations of qualitative research. Many of these are informed by the new sociology of childhood and the underlying assumptions about children's agency. At the same time, the increasing hegemony of some of the tenets of the new sociology of childhood are being questioned or modified (Leonard, 2016). For example, Uprichard (2008) highlighted the risk of disregarding the significance of children's 'becoming' by placing primary focus on their 'being'.

Children themselves have a clear sense that their lives are situated in the time during which they 'grow up'. An exclusive emphasis on children's agency and on their status as competent respondents in childhood studies may, paradoxically, lead to reinforcement of the distinctiveness of 'childhood' as a social space (Leonard, 2016). It may also tend towards selectivity in the construction and use of children's reports of their lives. There is, in fact, likely to be far more in common in terms of good practice across adult and child research than is often acknowledged (Harden et al., 2000). This line of argument also points out that the ability of children to provide information in words and through interviews should not be downplayed. Such a modification of the new sociology is, of course, relevant to qualitative and quantitative research that aims to use interviews, and that also aims for some consistency or standardisation across different contexts (or different children).


**“An overemphasis on children’s agency can disguise the ways in which the researcher-researched relationship is always imbued with issues of power and control.”**

Many authors rightly acknowledge the significance of differential power relations between adults and children. But an overemphasis on children's agency can disguise the ways in which the researcher-researched relationship is always imbued with issues of power and control. It is important to make any respondent at ease in the research setting. This does not imply, however, that researchers can, or should, aim to be equal (or friends) with the subjects of their research. Children themselves are highly aware of these issues of power and authority. For example, we can see a good discussion of a young child resituating the researcher in a 'teacher' rather than 'carer' role in Richards (2014).

Over-emphasis on children's agency also risks underplaying the significance of children's social location within families, communities and institutions. For example, they may find it more challenging to answer questions about family experiences within a family setting, while peer influences are likely to be greater in a school setting. Where children do attempt to challenge power relations within the research relationship or family, their strategies of 'resistance' may be problematic for the researcher bent on 'data collection' (Harden et al., 2000). Children may use silence or create gaps in the records they are asked to complete (Curtin, 2001), but in fact, such gaps and silences can be important and potentially informative (Richards, 2014). In interviews with children, quality of response should not be equated with volume of data, but thorough formative research is important in identifying (and possibly avoiding) questions or formulations that are likely to be problematic.

In extreme cases, an emphasis on children's agency may risk negligence in relation to responsibilities towards children. Ethical approaches emphasise a duty of care to those, including children, who have not necessarily reached a sufficient level of emotional maturity or legal, social or physical independence to avoid exploitation or abuse. Such responsibilities distinguish the researcher from an 'equal' or 'friend' (see also the discussion in Method Guide 2). When researching children in more marginal situations (at risk of neglect, abuse or exploitation), or who are especially young, or who have disabilities or are otherwise marginalised, a balance must be found between recognising children's agency (and supporting them to speak for themselves) and acknowledging the real constraints they face. As Richards et al. (2015) have discussed, attaining an ethical engagement with research subjects under such circumstances is often much 'messier' than standard ethical processes and procedures may imply.

Issues of agency have ethical implications in terms of 'informed consent' and participant confidentiality. They also have practical implications for deciding what type of research instruments to use and how questions should be developed and tested, and how surveys are implemented. These issues are embedded in wider consideration of the cognitive and social maturity of the child, and the ways in which children differ from adult respondents.



In sum, on the one hand, distinctions between child and adult respondents need to be treated with caution, and linear discussions of development that imply lack of competence up to an 'ideal' adult state need to be considered in the context of the new sociology of childhood. On the other hand, the ways in which children may demonstrate 'different' understandings from those assumed in adult research need to be taken into account if their voices are to be properly heard. I next turn to these issues of developmental stage and its implications.

## Age-appropriateness

Developmental stage or maturity does not correspond to specific age ranges. As Ariès (1962) famously pointed out, stages of life may not be tied to particular ages; and a number of authors have challenged, with historical examples, the assumptions of 'incapacity' that we associate with children's minority (see, for example, Lavalette & Cunningham, 2002).

Nevertheless, age provides a useful proxy for developmental stage, and for informing what kind of research questions are appropriate.

### **“Developmental stage or maturity does not correspond to specific age ranges.”**


There is clearly some need for flexibility, particularly as development is influenced not only by individual characteristics but also by context and expectations. For example, a six-year-old in school is likely to engage with research differently to one who has not (yet) had any experience of formal schooling. School provides children with skills such as how to answer questions, and often provides a 'template' for how to understand research. On the other hand, for children with experience of school, researchers may seem to them like 'teachers': non-family adults in a position of authority who ask them to carry out particular tasks. Children in this situation may try to give the 'right' answer that teachers would expect. Those in secondary schooling, surrounded by older peers and greater expectations, may show different levels of maturity to their same-age comparators who are (still) in elementary school.

That said, age and developmental stage insights can inform what interview and research approaches are suitable for children at different points in their childhoods (Borgers et al., 2000; Curtin, 2001; de Leeuw et al., 2004; Greig et al., 2007; Ólafsson et al., 2013; Read & Fine, 2005). The implications of these insights for research with children are discussed below and are summarised more briefly in the Checklist 2.

Studies have tended to divide children's abilities to answer questions and respond to research into broad developmental stages. Borgers et al. (2000, 2003) draw on Piaget's theory of child development to help establish the linguistic and response capabilities of children at different age stages. A monolingual child and context is usually assumed, but language use and linguistic confusions may be different for bi- or multilingual children, such as children growing up outside their parents' country of origin. Some contexts are inherently multilingual, for example, where the 'official language' is not typically spoken by those in a specific region or from a particular ethno-cultural group. While bilingualism is associated with positive cognitive development in the long term, it can delay early language acquisition and facility. For children of migrants or linguistic minorities in their country of origin, the language(s) used at school may differ from those used at home, and children taking part in research may be influenced by whether 'school' or 'home' language is used. It is important that tools and questionnaires recognise, are sensitive to, and ideally address these issues of multilingualism and of dominant or subordinate language bias. These issues should also be borne in mind when considering the broader issues of language development by age, outlined below.

Before the age of around 5 – and certainly before the age of 3 – children do not have the capability to meaningfully participate in survey research. However, qualitative and psychological research with young children can be carried out by using dolls or games (including computer-based 'games') to capture children's preferences, the development of social identities and cognitive development.

For example, the early formation of gender role attitudes has been investigated by asking children about 'male' and 'female' dolls (see, for example, [www.youtube.com/watch?v=-VqsbvG40Ww](https://www.youtube.com/watch?v=-VqsbvG40Ww)). In another example (Greig et al., 2007), researchers discuss the use of young children's drawings, both to



provide narratives and to convey information about their well-being. Play, role-play and visual prompts, such as photographs or drawings, can also be used to understand children's experiences and perspectives (Curtin, 2001; Harden et al., 2000; Richards, 2014). These approaches can be useful across childhood, not just with young children (Greig et al., 2007). Children under 5 can indicate persons and things, but struggle with questions that ask more evaluative or causal questions (e.g., why?). They also struggle to think in temporal sequence and to distinguish past, present and future, even if they use tenses in their language. While young children have been shown to have little difficulty engaging with computer-based games, it is less clear that they can make meaningful distinctions around use of technology itself (Khanum & Trivedi, 2012; Read & Fine, 2005).

**“Language(s) used at school may differ from those used at home, and children taking part in research may be influenced by whether ‘school’ or ‘home’ language is used.”**


Between the ages of around 5 and 7, children can engage in research but will tend to be very literal in their responses. If asked about a particular item, behaviour or experience, they are unlikely to extrapolate to equivalent or synonymous items or behaviours or experiences. Vogl (2015) gives an example of a child who ‘confirmed’ they were better from their ‘cold’, but then clarified that they had been away from kindergarten because of a ‘fever’. Children also tend to agree with questions or statements put to them, even if they do not understand them. Children of this age also find it difficult to identify what distinguishes a particular object from a family of objects, and they are inclined to use apparently contradictory formulations such as ‘always sometimes’. They also struggle to ‘decentre’ – that is, to place themselves in the position of the person asking the questions. Questions for young children must therefore be direct and simple; they should avoid vague quantifiers (such as ‘often’); and the terms used should be broad enough to include all relevant experiences (e.g., ‘being ill’ rather than ‘having a cold/fever/flu’). It may be helpful to sub-divide questions into ‘person’, ‘thing’ and ‘experience’, so that children can provide a step-by-step account. In relation to digital technologies and the internet, the language needs to find a balance

between general terms and the specificity needed to capture children's usage and behaviours. Giving particular examples of devices or uses may not yield informative answers, but generic terms may not be understood either. Children at this age can probably demonstrate their use better than they can talk about it. Formative work may be needed to improve our understanding of how children talk about and use digital devices.

**“It has been common practice in elementary school surveys to include a range of ‘smiley faces’ to capture likes and dislikes, or to enable children to specify what makes them ‘happy’ or ‘sad’.”**

Up to around the age of 10, when they begin to be able to respond in more ‘adult’ ways, children may be stimulated to respond by visual as well as verbal cues. It has therefore been common practice in elementary school surveys to include a range of ‘smiley faces’ to capture likes and dislikes, or to enable children to specify what makes them ‘happy’ or ‘sad’ (Davies & Brember, 1994; West et al., 1997). However, smiley faces can be open to a wide range of interpretations and misinterpretations – such as looking for the face that looks like the child him- or herself. They are likely to be less useful for younger children (Davies & Brember, 1994). Read and Fine (2005) advise that such visual scales are not suitable for children younger than 7. More recently, young children may be using (somewhat indiscriminately) similar symbols if they access ‘emojis’ on digital devices. This may affect their response to visual scales in ways that we do not yet understand. It is important to remember that ‘childish’ symbols are not necessarily accessible to all children; they still presuppose an understanding of their symbolic meaning. Simple indicators of response that can be learned as ‘symbols’ by older children or adults may not be as intuitive to young children as is often imagined. And even for older children, such symbols may benefit from being fully labelled (Khanum & Trivedi, 2012).

Between the ages of 7 and 10, children make a significant linguistic and conceptual leap. They make fewer linguistic ‘errors’ and are expected to be more able to ‘decentre’ (to think from another's perspective, e.g., ‘children like you’ or ‘children your age’). Vogel (2015) found that such decentring did not actually



occur until children were aged around 9. Scott (1997) found that even among older children (11–15), lack of decentring could still create confusion. For example, in an audio (recorded) question that asked about ‘children my age’, some of the respondents tried to guess the recorded interviewer’s age. They were not able to abstract that the ‘my’ was intended to be translated to themselves as respondents to the questions. Similarly, Read and Fine (2005) report that when children were asked to evaluate a writing exercise they tried to evaluate the quality of the writing they had produced rather than the exercise. Such confusions are easily avoided if considered in advance, and if suitable pre-testing is carried out, as discussed further below.

From around the age of 11, heterogeneity is likely to be particularly pronounced, with children of similar ages having very different levels of linguistic fluency, cognitive understanding and ‘interaction management’. In general, the memory of children of about this age is the same as that of adults, and they should therefore be able to recall events and experiences. On the other hand, as children’s interaction skills improve around this age, they may become more susceptible to social desirability bias (Krumpal, 2013). That is, they may grasp what the socially desirable response is and reply accordingly rather than providing their own ‘genuine’ perspective. Such socially desirable responses will also be influenced by a tendency to conformity with their peer group, which usually strengthens from this age. There are no hard and fast cut-offs when it is possible or impossible to ask children ‘adult’ questions, but they are more likely to be answered reliably and accurately from this age. Of course, even ‘adult’ questions should conform to good question design and be as simple and clear as possible (Bradburn et al., 2004; Tourangeau et al., 2004). There are, however, a few specific considerations to bear in mind.

Even if some 11- to 16-year-olds have the linguistic, developmental and cognitive capacity to answer questions much as adults, it is still likely to take greater effort, be more burdensome and require more time. For instance, de Leeuw (2011) suggests that children over the age of 12 process the information needed to respond to questions around one-and-a-half times more slowly than adults. This suggests that questionnaires or interviews with children should be shorter than those for adults. Timings should be based on questionnaires carried out with (or specifically tested on) the relevant age group and, as abstract

questions remain relatively more difficult for children, abstract questions or reasoning should be avoided if possible.


## Question design

Survey instruments themselves may affect the responses. Children may be more susceptible to primacy (selecting the first in a list on a showcard or other visual list) and ‘recency’ effects (selecting the most recently heard option). For example, Fuchs (2005) found that children aged 10–13 were twice as likely as their older peers to select the first item from a long list. Children tend to find it harder to answer negative questions (asking what they have not done or do not like) than positive ones, so it is worth trying to phrase questions in positive rather than negative ways.

Children, like adults, remember recent events more accurately than events in the past, but they tend to have a weaker sense of time periods. Children are more likely to think in terms of salient periods (e.g., since the beginning of the school term, or since a significant event). Questions that ask them to think ‘over the last 12 months’ or ‘over the last month’ may be difficult. Younger children in particular have a limited sense of time and sequence, so it is worth considering whether sufficient information can be collected with a relatively short recall window (e.g., the previous day, the last week).

Borgers et al. (2003) expected that children would provide more stable responses if they are given specific rather than vague response options (e.g., ‘once a week’, ‘every day’, rather than ‘sometimes’, ‘often’). While their study did not provide unequivocal evidence that this was the case, the literature indicates that more specific response categories should give better results. On the other hand, frequencies provided as discrete categories may not correspond to the child’s perception of salience. Children may see infrequent occurrences as happening ‘a lot’ if the event in question is highly salient to them (e.g., being bullied). Responses to questions on frequencies are likely to be more stable across children, even if they do not capture the significance of the event for the child (Smith & Platt, 2013).

Finally, children’s responses to questions requiring answers in terms of specific frequencies (number of times) are likely to be better if they are given options (e.g., 1–5, 6–10 etc.) rather than being asked to



provide a number. This reflects the greater effort needed by children to process information, and also their wish to provide an 'expected answer': with an open-ended question it is more difficult to establish what this might be. Providing categories for frequencies is unlikely to result in substantial loss of information, as long as the frequencies cover reasonable amounts or periods, since open-ended questions may invite answers that cluster at regular levels (such as 5, 10, 20) (Smith & Platt, 2013).

### Survey completion – gaps related to age and maturity

Willingness to answer a question does not necessarily mean that a child has understood it. Children tend to want to please, and young children in particular will aim to provide the desired information, even if they do not know what it is. Therefore, the fact that a child answers a question should not necessarily be taken as evidence that a question 'works' (see Waterman et al., 2000).

Similarly, while it is important to allow children to refuse to answer a question, the researcher must be sensitive to the extent to which refusal is meaningful. Young children may not understand that the adult interviewer does not 'know the answers' and may need encouragement to see themselves as able to provide information.

Finally, what is sensitive to a child may not be obviously sensitive to a researcher – even one familiar with the particular cultural context. The 10–16 age group may be particularly affected by the sensitivity (from their perspective) of a question, as children at this stage are particularly influenced by peers and social norms. Questions that ask them to provide information which is 'taboo' within such peer groups may present difficulties for them. It is worth scrutinising questions with the child's world (and context) in mind to try to ensure that inappropriate questions are not asked. Clarification of what is (and is not) sensitive for the children and context concerned may be best achieved through pre-testing, as discussed in the next section.

## Pre-testing

Implicit in much of the preceding discussion is the critical importance of testing the instruments and


approaches to be used. This 'pre-testing' can take many forms, including:

- participatory research
- formative research
- cognitive testing
- quantitative pre-testing
- piloting

Participatory research is covered in more detail in Method Guide 8. However, it is important to consider as early as possible how and in what elements of a study children can be involved. Children's participation can be elicited in many ways (Greig et al. 2007), including interactive methods such as the use of photographs to help define key elements of children's lives, or structured discussions such as focus groups. The options for involving children in research, including in the design and dissemination stages, are included later in this Guide.

Formative research can be used as an initial stage in both quantitative and qualitative research. It can explore how children think about the topics of interest, the language they use, and the salience and sensitivity of particular topics. It can also test the acceptability of different forms of investigation. This might include the mode of interviews (e.g., face-to-face or self-completion); the use of particular types of visual prompt or stimulus; how a diary might be used to record lives; and other elements of the research process. Formative research should be undertaken as early as possible, and before research instruments are prepared for cognitive testing (discussed below). It can be carried out collectively, for example, in focus groups, or in one-to-one semi-structured interviews. Both can be helpful, as the collective nature of group research can help establish common understandings for an age range or a particular target population, while one-to-one investigations can tease out details of how issues are understood or how lives are lived in the family context. The examples later of resources include one formative study that used both focus groups and individual interviews to assess children's understanding of research and what might enhance their participation.

Cognitive testing and quantitative pre-testing (Fowler, 2004) are critical parts of the development of good survey instruments (Beatty & Willis, 2007; Presser & Blair, 1994; Presser et al., 2004). Cognitive testing is



now recognised as an essential part of ensuring good quality data (Collins, 2003; Beatty & Willis, 2007; Willis, 2005). There are extensive discussions of how to carry out cognitive testing, and the implications of different approaches, but cognitive testing is less commonly combined with quantitative testing (Fowler, 2004) or applied in the ideal model of multiple rounds of testing, even though this would be best practice. A useful set of guidelines for cognitive testing can be found in Willis (1999), also included later. These guidelines take the researcher through the different ways that cognitive testing can be implemented, from 'thinking aloud' to a more 'prompt-driven approach'. Thinking aloud involves asking the child to say what they are thinking as they answer a question or engage in a task. They are asked to talk through the whole thought process of how they arrive at their answer. Thinking aloud can be relatively challenging, even for adults, and is likely to be unsuitable for younger children. Other approaches involve the researcher asking the question and then using probes after the child has answered to try to analyse what the answer means, how the child arrived at it, their understanding of different words in the question, or their understanding of different response options. Researchers can also probe to find out more about observed hesitations, changes of mind, or other signs of apparent confusion (see also Beatty & Willis, 2007; Willis, 2005).

Relatively structured cognitive testing can help to check how children understand particular words as well as whole questions. It can illuminate the (sometimes unexpected) ways in which children process ideas or treat elements of questions very literally. Even when questions have been validated for general populations, cognitive testing can check that the questions are understood by the target population, which may differ according to age, country of interview, particular circumstances (e.g., children with disabilities), or the context of the question in the questionnaire. Children may gain particular expectations about the meaning of questions or the 'expected' response from questions that they have just answered. If, for example, a questionnaire covers children's use of digital devices and online access, the children may become accustomed to the way particular terms are applied. If they were, by contrast, asked a single one-off question preceded by different content they might respond differently. It is therefore

important to ensure that when cognitively testing individual questions, sufficient 'context' is provided.

Qualitative testing, including cognitive testing, looks in detail at the ways individual children answer questions. It is able to identify issues in wording, phrasing and concepts. But at the same time it tends to provide an individualised perspective on how the questions work. A more formal, quantitative pre-test enables checking of the extent to which children respond to questions in a larger-scale replication of the survey (Presser & Blair, 1994).

Quantitative pre-tests also give insight into the distribution of responses and the extent to which these appear to make sense are likely to enable meaningful analysis. For example, if almost all children select one category on a frequency question (e.g., how often they do a particular activity), it suggests that the range of frequencies is not suitable, regardless of whether they are comprehensible in themselves. Quantitative pre-testing can also include experimental testing to ascertain which of two possible formulations of a question provides more complete responses or a more usable distribution of responses (see, for example, Smith & Platt, 2013). Ideally, cognitive testing (comprising more than one round to check any consequences of rewording in response to the first round), plus a round of quantitative pre-testing, should be carried out prior to fielding a survey.

Both qualitative and quantitative research instruments should also be piloted. A pilot mimics on a small scale the main data collection exercise, providing a practice run of the whole research process. While formative work may include more ad hoc or convenience samples, piloting should aim to reach respondents in the way they will be sampled for the main fieldwork (see also Method Guide 3). A pilot will therefore work through all stages of the research, from sample selection to approach and engagement, to consent, data collection, and any associated incentives, information provision or follow-up. In terms of size and number of respondents, it may only include one or two cases for detailed qualitative work. For quantitative surveys a pilot will typically be larger, for example, some tens of cases. In this way it can provide the opportunity for (further) quantitative pre-testing of responses. But its size will depend to a large degree on the complexity of the study.

# IDENTIFYING GOOD PRACTICE

This section outlines how the issues discussed above have been addressed in practice, taking a single example as a case study.

## Good practice and longitudinal and child cohort studies

Many child cohort and longitudinal studies – surveys of babies, infants or children that follow those same children through their early years and adolescence – have been done throughout the world, and are particularly valuable for understanding children's development. They can help to identify which influences on social, emotional and educational outcomes are important at different ages and throughout childhood (see, for example, [www.unicef-irc.org/knowledge-pages/Symposium-on-Cohorts-and-Longitudinal-Studies--2014/1088](http://www.unicef-irc.org/knowledge-pages/Symposium-on-Cohorts-and-Longitudinal-Studies--2014/1088)). Such cohort studies have a long history: the first UK child cohort study, for example, began in 1946. Increasing recognition of the particular insights offered by following up the same children over time has resulted in a recent proliferation of child cohort studies, many of which offer examples of good practice and innovation. Two short examples follow.

While it is not possible to discuss all the interesting and innovative child longitudinal and cohort studies, it is worth noting that these studies 'speak to' each other, sharing learning, good practice and new developments. See, for example, the report of a 2014 meeting hosted by UNICEF and Young Lives (<http://www.younglives.org.uk/node/8056>), or a 2015 meeting in Mexico on developing a cohort/longitudinal study, (<http://lucindaplatt.com/2015/11/19/why-longitudinal-studies/>).

Much could be written about the ways any of these studies tackle the particular issues raised by surveying children throughout their childhoods. However, the rest of this section focuses on just one example, the UK Millennium Cohort Study (MCS), to illustrate the issues and approaches identified above. Specifically, it illustrates how children's agency, age-appropriateness, question design and pre-testing (covered earlier) are addressed in a single study.

### Example 1: Encuesta Longitudinal Colombiana de la Universidad de los Andes

Colombia boasts a longitudinal study (the Encuesta Longitudinal Colombiana de la Universidad de los Andes) that incorporates direct measures and assessments of younger children in a household within a wider household survey (see <https://encuestalongitudinal.uniandes.edu.co/index.php/en/elca>). It also explicitly distinguishes between the experience of urban and rural populations, a critical distinction in many low-income countries. Chile also has an infant cohort spanning two three-year periods of births, which incorporates multiple age-appropriate direct measures of socio-emotional development, as well as of physical and cognitive development (see [www.crececontigo.gob.cl/wp-content/uploads/2013/07/INforme-ELPI-2010.pdf](http://www.crececontigo.gob.cl/wp-content/uploads/2013/07/INforme-ELPI-2010.pdf)).

### Example 2: Young Lives

Young Lives ([www.younglives.org.uk](http://www.younglives.org.uk)) is a cross-national comparative study of children in Ethiopia, India, Peru and Vietnam who are revisited at regular intervals. Like a number of single-country studies in high-income countries, such as the Longitudinal Study of Australian Children and the US Early Childhood Longitudinal Study (<https://nces.ed.gov/ecls/>), it follows a dual cohort design, enabling comparison across children born in different periods as well as following changes in individual children's lives. Crucially, its harmonised design also enables cross-country comparisons. Alongside the survey data collected from both adults and children, Young Lives incorporates qualitative studies that provide children's narratives of their biography and key transitions.



## An example of good practice

The UK MCS is an early example of the recent proliferation of child cohort studies that have emerged in the 21st century. It marks a shift towards regarding children as participants rather than as passive research subjects, and it has responded to ongoing developments (including around ethics) and the need to maintain an age-appropriate approach as children grow up. The MCS is widely acknowledged to set a 'gold standard', and has influenced the design and development of several other child cohort studies (including in Ireland, New Zealand, Australia and France). It has also had close links with the Young Lives study mentioned above, has learned from evolving practice, and aims to incorporate new insights into best practice at each survey.

**“The Millennium Cohort Study is widely acknowledged to set a ‘gold standard’, and has influenced the design and development of several other child cohort studies.”**

The MCS is a nationally representative study of around 19,000 children from across the four countries of the UK who were born in 2000–01. The children and their families were first surveyed when the MCS children were around 9 months old, and have since been followed up at ages 3, 5, 7 and 11 (see [www.cls.ioe.ac.uk/mcs](http://www.cls.ioe.ac.uk/mcs)). The MCS is a large-scale, multidisciplinary, multipurpose survey that needs to meet the requirements of standardised instruments and data collection. It is complex – the children in the study vary widely in capabilities and development – and there is a range of interviewees (parents, children and, in some instances, teachers). The study also needs to collect direct measures (cognitive assessments and physical measures).

As the MCS is a longitudinal study of a single cohort of children, the children are all roughly the same age at each follow-up. As the children grow older, the approach and questions have had to be adapted to reflect age-related best practice. The study has also taken on board emerging wisdom relating to best practice in surveying children (the literature on the ethics of surveying children has advanced substantially since the study began). Making these adaptations is an important part of a longitudinal study, also for

practical reasons of engagement, because continuity and sample retention are crucially important.

The MCS has, therefore, adjusted its approach (and questions) as the children grow up. It has also considered what should be asked of the different respondents in the household (parents/carers and children), and the nature and practicalities of the child's involvement at different ages, as well as how both parents and children can be encouraged to remain in the study.


The MCS provides a good example of best practice for large-scale surveys with children in the following areas, here ordered to correspond to the stages of development in the study. But each subheading is mapped back, as indicated in square brackets, on to the key elements listed earlier (children's agency; age-appropriateness; question design; pre-testing) to facilitate cross-referencing.

- Ethical approach [children's agency; age-appropriateness].
- Formative work on lives and experiences, approaches, informed consent, questionnaire mode [pre-testing; children's agency; question design].
- Recognition of the particular value of young people as witnesses of their own lives (e.g., instituting a time diary) [children's agency; age-appropriateness].
- Drawing on good practice and recommendations from the literature and relevant experts in question formulation and selection [question design; age-appropriateness].
- Cognitive interviewing, in some cases multiple rounds [pre-testing; question design].
- Quantitative and experimental testing [question design].
- Recognising diversity among children.

### Ethical approach

[Allowing for children's agency; ensuring age-appropriateness]

All surveys, particularly those involving children, must follow formal ethical procedures. These include getting approval for the materials to be used with parents and children, for all the tracing and contact procedures, and for the survey instruments. Interviewers are also bound by their professional industry codes of conduct. However, formal ethical approval is only one part of a



broader consideration of ethical research with children and their families. As children grow older, different levels of engagement in providing informed consent to their own participation become relevant (see Method Guide 2). At the MCS surveys when children were about 3 and 5 years old, it was made clear that children could refuse to take part in any of the activities. At age 7, when a child self-completion questionnaire was first introduced, the choice to refuse or participate was made more explicit, although assent remained verbal and was checked and confirmed by the interviewer. At age 11, a more developed consent process was introduced. Parents could still 'veto' their children's participation in any activity, but could only agree for their child to be approached for consent. Final consent for participation was sought from the children themselves. A detailed, scripted consent process, drawing on pre-delivered leaflets, was talked through with the children, with their formal (verbal) consent being sought for each activity that their parents had approved.

**“As children grow older, different levels of engagement in providing informed consent to their own participation become relevant.”**

A further extension of the ethical approach at this age was the recognition that topics in the children's self-completion questionnaire (e.g., questions about bullying) might trigger distress, however carefully the questionnaire had been drafted. Children were therefore given a leaflet at the end of the survey, which thanked them for their participation, explained what would happen with their data, and gave them the number of a children's helpline.

### **Formative research**

[Allowing for age-appropriate processes and instruments; ensuring good question coverage and design]

Formative research was used to develop the surveys throughout the MCS study. For the age 14 survey, formative research informed the consent process used with such 'almost adults', exploring how children of this age understood research and the use of their data, as well as the meaning of consent. These issues are fundamental to obtaining what can be meaningfully considered 'informed' consent (see Method Guide 2).

The report of this formative work is listed below, under 'Key resources'.

Formative work was also carried out at earlier stages, such as before the age 11 survey, to test the acceptability to parents of potentially sensitive areas of questioning such as risky or antisocial behaviour. As well as influencing the questions asked, this work also shaped the engagement materials and interviewer briefing.


### **Recognising the value of young people as witnesses of their own lives**

[Children's agency; age-appropriateness]

The importance of gaining the perspectives of the MCS children on their own lives was recognised by the inclusion at the age 7 survey of a self-completion questionnaire. Age 7 is often seen as a key period in children's development when they are able to respond more fully and reliably to questions about their lives. The age 7 questionnaire was carried out privately by the child – the interviewer assisted only when requested. The self-completion component was extended in the age 11 survey to collect more detailed information covering more domains of the child's experience, including school and leisure time, friendships, bullying, self-concept, time spent away from adults, use of digital devices and online access and use, and engagement in 'risky' or antisocial behaviours. Survey procedures aimed to maintain privacy (including privacy from other family members) as far as possible. Children were asked to return the completed questionnaire in a sealed envelope to emphasise the anonymity and confidentiality of their responses.

**“It is important in a major study to ensure that questions meet the needs of the research community. It is also necessary to ensure that their construction conforms to good practice and is appropriate for the sample population.”**

At the age 14 survey, the child's self-completion questionnaire was intended to provide most of the information about the child's life. By this age, children can be expected to respond with the same capability (in terms of memory and processing of questions) as adults, although they may still take longer than adults.



To avoid over-burdening the children, some questions were still asked of the parents. The parental questionnaire focused on family circumstances, where the parent would be likely to have better information, and on those areas that were more ‘factual’, such as the school attended, where the information could reasonably be asked of either parent or child, and asking the parent saved space in the child’s questionnaire.

The age 14 self-completion questionnaire was carried out on a tablet while the interviewer was present, but in conditions of as much privacy as was possible in a household setting. To gain better information about how – and with whom – the children spent their time, a two-day diary was completed by the cohort members, either online using a computer or tablet, or on a mobile phone in a web application. Those without online access could complete a paper version. This innovation recognised that reporting is most accurate when it is immediate, and acknowledged the importance of understanding peers and context in children’s lives.

### **Drawing on good practice in formulating and selecting questions**

It is important in a major study to ensure that questions meet the needs of the research community. It is also necessary to ensure that their construction conforms to good practice and is appropriate for the sample population. The MCS drew on a wide range of ‘expert’ researchers to help construct the questionnaire. An open consultation allowed further researchers to feed in their research priorities and suggestions for questions. Often, proposed questions would already have been used on other surveys and be validated on age-matched samples.

**“It is important in a major study to ensure that questions meet the needs of the research community.”**

However, it was not always possible to include the (whole of the) lengthy suites of suggested questions; in some cases there were competing options for capturing a given concept (e.g., mental health, consumerism etc.). Direct engagement with relevant researchers was often the most effective way of resolving these issues and identifying a more feasible set of questions, given the restricted length of the questionnaire. Recourse was also made to the

literature and to internal validation exercises such as investigating the distribution of responses for sets of questions from earlier surveys (to identify which it would be most useful to retain).

Some recommendations from the literature, such as that children respond better to positively phrased questions, led to the selection of a short list of positively phrased self-esteem measures from a longer list of both negatively and positively phrased items. New questions were developed with recourse to the survey methodology literature and good practice on question formulation. This also extended to the visual presentation of questions and full labelling of response scales. Such new questions and question formats were then cognitively tested to ensure that they were understood as intended.

### **Cognitive interviewing**

[Pre-testing; question design]

Cognitive interviewing of questions that had not been previously validated or used in earlier sweeps of the survey have been carried out on each survey occasion, covering both parents’ and children’s questionnaires. As discussed, cognitive testing can reveal where children’s understanding of question or response options differs from what is expected. It also highlights any unexpected consequences of the questions, such as unanticipated distress or sensitivity.

**“Cognitive testing can reveal where children’s understanding of question or response options differs from what is expected.”**

Cognitive interviewing was carried out using samples of respondents who were the same age as the target MCS participants, and who varied (like them) in terms of cognitive ability, socio-economic background, region of residence and ethnicity. This was intended to ensure that conclusions from the cognitive testing would be relevant across the range of MCS participants. In some cases, more than one round of testing was used as the questionnaire evolved. In light of the cognitive interviewing, the wording of some questions was changed, some questions were dropped, and some were reallocated to parental rather than child questionnaires.

## Quantitative and experimental testing

As well as drawing on existing literature, MCS questionnaires were developed with a view to gaining deeper insight into how children answer questions. Specific experiments were undertaken to determine how questions – or response categories – should be phrased in the study. For example, experimental testing was used to ascertain the best way of asking about bullying frequency and alcohol consumption (see Smith & Platt, 2013), and about friendships and friends' characteristics.

Another project used both qualitative and quantitative research to investigate how to ask young people about their expectations of education. This latter project took the form of focus groups, the formulation and design of questions (building on existing examples and the insights from the focus groups), cognitive testing of the proposed questions, and large-scale web-based testing with a sample of children of the relevant ages. This demonstrated the full succession of phases of question development, including the theoretical embedding of the research project in key research interests.

**“It was vital that consideration was given to the ways in which children’s ability to engage with the survey was likely to vary.”**

## Heterogeneity among children

Implicit in all of the above is attention both to age and to variations in experience and understanding. The MCS study was designed so that the surveys would take place at a common age for all participants. Such an approach fits with the way UK children's lives are structured, with school transitions being tied to age. Nevertheless, it was vital that consideration was given to the ways in which children's ability to engage with the survey was likely to vary, including possible physical or emotional-behavioural challenges to carrying out the different elements of the survey. Specific measures were therefore put in place to ensure maximum inclusion of children who have disabilities: for instance, an interviewer could read out the questionnaire to the child and record his or her answers. Variation could also relate to the developmental stage that children had reached.

Differences in language and literacy were, for example, partly compensated for by an audio version of the self-completion questionnaire in the age 11 survey. Sensitivity to the differences in physical development was dealt with by thorough training of interviewers on how to take children's height and weight.

**“Balancing research interests with the lack of salience for large numbers of respondents required careful design of survey instruments as well as engagement with parents.”**

As noted, risky behaviours are often of particular interest to researchers, but only a small minority of young children participate in such behaviours. Balancing research interests with the lack of salience for large numbers of respondents required careful design of survey instruments as well as engagement with parents. This drew on formative work with parents and children, as well as pre-testing and piloting, and helped to ensure high-quality responses across the study.

# USEFUL ONLINE RESOURCES

## Resources provided by the author

Ipsos MORI (2013). *MCS6 and Understanding Society participant engagement research*. Ipsos MORI.

[www.cls.ioe.ac.uk/shared/get-file.ashx?id=1776&itemtype=document](http://www.cls.ioe.ac.uk/shared/get-file.ashx?id=1776&itemtype=document)

Joshi, P., Little, S.-J., Lea, J., & Wallace, E. (2013). *Developing youth engagement in the Millennium Cohort Study and Understanding Society*. London: NCB.

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Presser, S., Rothgeb, J., Couper, M., Lessler, J., Martin, E., Martin, J., & Singer, E. (2004). Chapter 20: Pretesting questionnaires for children and adolescents. In E. deLeeuw, N. Borgers and A. Smits (eds) *Methods for testing and evaluating survey questionnaires* (pp. 409–30). John Wiley & Sons Inc.

<http://onlinelibrary.wiley.com/doi/10.1002/0471654728.ch20/summary>

Read, J., & Fine, K. (2005). Using survey methods for design and evaluation in child computer interaction.

[www.chici.org/references/using\\_survey\\_methods.pdf](http://www.chici.org/references/using_survey_methods.pdf)

Reeves, A., Bryson, C., Ormston, R., & White, C. (2007). *Children's perspectives on participating in survey research*. London: NatCen.

[www.natcen.ac.uk/media/118976/childrens-perspectives-participating-research.pdf](http://www.natcen.ac.uk/media/118976/childrens-perspectives-participating-research.pdf)

Shaw, C., Brady, L.-M., & Davey, C. (2011). *Guidelines for research with children and young people*. London: NCB Research Centre.

[www.nfer.ac.uk/nfer/schools/developing-young-researchers/NCBguidelines.pdf](http://www.nfer.ac.uk/nfer/schools/developing-young-researchers/NCBguidelines.pdf)

Willis, G. B. (1999). *Cognitive interviewing: A 'how to' guide*. Research Triangle Institute.

<http://appliedresearch.cancer.gov/archive/cognitive/interview.pdf>

## Additional resources

Barbovschi, M., Green, L., & Vandoninck, S. (eds) (2013). *Innovative approaches for investigating how*

*children understand risk in new media. Dealing with methodological and ethical challenges*. London: EU Kids Online, LSE. <http://eprints.lse.ac.uk/53060/>

Beatty, P. C., & Willis, G. B. (2007). Research synthesis: The practice of cognitive interviewing. *Public Opinion Quarterly*, 71 (2), 287–311.

<http://poq.oxfordjournals.org/content/71/2/287>

Curtin, C. (2001). Eliciting children's voices in qualitative research. *American Journal of Occupational Therapy*, 55 (3), 295–302.

<http://ajot.aota.org/article.aspx?articleid=1868990>

Harden, J., Scott, S., Backett-Milburn, K., & Jackson, S. (2000). Can't talk, won't talk? Methodological issues in researching children. *Sociological Research Online*, 5 (2). <https://ideas.repec.org/a/sro/srosro/2000-32-2.html>

Robert Wood Johnson Foundation (no date). Lincoln and Guba's evaluative criteria. Somerset, NJ: Robert Wood Johnson Foundation.

[www.qualres.org/HomeLinc-3684.html](http://www.qualres.org/HomeLinc-3684.html)

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# CHECKLIST 1

**1 DEVELOPMENT WORK:** This should ideally comprise formative work to test key concepts, acceptability, relevance etc., followed by cognitive testing of survey instruments.

Cognitive interviewing should be carried out for all questions that are new to the age group or social context, which have been newly developed, or which the researchers have reason to believe are 'sensitive' for children.

Changes resulting from cognitive interviewing should ideally be re-tested as they may introduce further unexpected issues.

All survey instruments should be piloted on participants who are as close as possible to the target research subjects under conditions that mimic the conditions of the main research encounter.

## 2 STYLE, LANGUAGE AND PRESENTATION OF RESEARCH

**TOOLS:** The language of research tools should always follow good design principles. Visual prompts may be helpful to elicit children's responses (especially in qualitative research).

However, it should not be assumed that visual cues – especially relatively schematic ones such as those representing particular roles (mother, child, teacher etc.) or emoticons (smiley faces) – are necessarily child-friendly or intuitively comprehensible to children. They may imply substantial symbolic knowledge that may vary considerably not only with age, but also with access to similar representations, for example, in schoolbooks.

It is not reasonable to expect children under 5 to respond to standardised survey instruments; they may need support in completing them up to the age of around 10. Also, self-completion instruments require particular levels of literacy, even if they use schematic information to help children categorise their responses.

Children respond better to positively phrased questions, so consider how to avoid negative questions. Young children are inclined to agree. Consider how much useful information 'yes/no' questions with children are likely to deliver. Consider whether the reference period (e.g., yesterday, last week, last year) is likely to be meaningful to children. What are the events and rhythms that are likely to shape the respondent children's time? Shorter time horizons are likely to provide more accurate responses than longer ones.

**3 ENABLING CHILDREN TO RESPOND IN CONTEXT:** Engage family

members: even teenage children may like to have confirmation from main carers or other adults that it is okay to participate in the research.

Take account of the context in which the research takes place: children may give different responses at home and at school. Older children are likely to be more sensitive to peer effects, which may affect responses if they are surrounded by peers.

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**4 COMPLETION AND NON-COMPLETION:** Children often want to please, so they may attempt to answer even when they do not understand a question. A plausible answer is not necessarily a valid representation of a child's view.

While non-response and gaps in qualitative research tools are often seen as problematic, it is important to allow silences or gaps to 'speak'. Such 'non-response' may be the only way children can resist the research process or provide information when topics are too difficult or when they are constrained by the context. Gaps may also indicate where questions are inappropriate or irrelevant.

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**5 COLLECTING COMPLEMENTARY INFORMATION FROM PARENTS:** It is often beneficial to collect complementary information from parents or other significant adults. This is the case where the information is too complex or sensitive to collect from children, or where adults will be more reliable informants (e.g., on household resources, their own jobs, other children in the household, or, if teachers, other children in the class). Collecting information from adults also reduces the burden on the child.

Think about what information will provide important context to the children's responses and whether it can as easily or more appropriately be collected from significant adults. Consider too the important aspects of a child's life where it will be difficult to get reliable information from the children themselves. Decide whether it is possible to implement a parent questionnaire or interview alongside the child's. Are there any implications in terms of the questions the child is being asked, or the setting, for example, will the child be able to overhear their parent's answers? Can the setting be used to maximise the engagement of the child, for example, by the child seeing that the parent is happy to answer questions?

Children can provide rich and accurate information about many elements of their lives. They can also help to tell us which questions we should be asking – if we enable them to do so


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# CHECKLIST 2

## Issues to consider when researching children at different ages

Age in years	Providing information to research studies	Responding to questions, especially standardised surveys	Other issues
2–5	<p>Short attention span – only able to attend to one ‘task’ at a time.</p> <p>Able to provide information about their lives and distinguish fact from fantasy.</p> <p>Limited ability to recall specific time periods or events.</p> <p>Sense of time not well developed – may struggle with ordering events in sequence.</p> <p>Drawing and familiar toys can be useful to provide responses or talk about people and activities.</p>	<p>Standardised questionnaires not suitable for this age range, but individually administered, age-appropriate standardised tests and exercises can be used.</p> <p>Observations and eliciting information through drawings or role-play can provide insight but requires skilled, trained personnel.</p> <p>Can answer ‘what’ and ‘who’ questions by demonstration e.g., pointing.</p>	<p>Ability to express themselves and convey information is linked to memory and language skills, which are limited at this age.</p> <p>Direct questions may elicit more reliable information than make-believe.</p> <p>Are probably able to engage with digital technologies, but less likely to be able to provide information about their use.</p>
5–7	<p>May tend to agree with the researcher/interviewer even if they don’t understand what is being asked – ‘yes/no’ questions may overstate positive responses. Questions should break down events or experiences into small parts (e.g., person, thing, activity).</p> <p>May be easily distracted. Familiar toys may be helpful in establishing narratives.</p> <p>Visual prompts (drawings and photographs) may provide basis for questions and answers and give children ownership.</p>	<p>Can respond to more formal questioning, but likely to be literal in their responses.</p> <p>Questions should be specific and relate to the child’s experience.</p> <p>Ability to engage with structured interviews or questionnaires likely to be influenced by whether or not they have experience of formal schooling and the associated structures/expectations.</p> <p>If used, structured questionnaires should be kept short.</p>	<p>Visual scales (e.g., smiley faces) not likely to be reliable at this age.</p> <p>Children are likely to appreciate neutral expressions of appreciation/commendation on their participation.</p> <p>Can provide assent to participate.</p> <p>Use of digital technologies is best demonstrated by use and performance.</p>

7–10	<p>Incomplete memory development, so questions best focused on the here and now.</p> <p>But salient past events can be recalled well, and there is much greater ability to distinguish past, present and future, and the sequence of events. Interest in the subject is likely to influence the quality of information provided.</p> <p>Attention span is greater than for younger children.</p>	<p>Language and reading skills expand (or are acquired) for many children at these ages, and children can more confidently be interviewed or surveyed with structured questionnaires.</p> <p>They will still tend towards literal responses.</p> <p>Answer categories should avoid 'vague quantifiers'. Negatively worded questions are difficult at this age.</p> <p>Can find it hard to put themselves in another's shoes, e.g., answer questions about 'people like them'.</p> <p>Response categories should be kept few in number.</p>	<p>Being in formal schooling is likely to help with structuring time and recall of periods and events, and improve attention to formal activities.</p> <p>Visual scales or cues can be used but should be fully labelled.</p> <p>Speed of response is slower than adults for equivalent questions.</p> <p>Children may try to provide the 'desired' or 'correct' answer.</p> <p>May struggle to answer sensitive questions (ideas of what is sensitive may differ from researchers'). Expectations of what children are going to be asked (to do) should be established in advance.</p>
10/11–13/14	<p>Memory capacity increases to its adult level around age 10, so they can deal with more and more detailed response categories.</p> <p>From around 10/11 they are able to say what they do not know or understand.</p> <p>May be able to take on another person's perspective and deal with 'hypothetical' questions or questions about the future.</p>	<p>Speed of response still slower than for adults.</p> <p>Questions can cover more detailed recall periods. Children can deal with more decentred questions, (e.g., asking them to take a view on others' perspectives), and they reflect more on their answers.</p> <p>May still tend to interpret questions fairly literally.</p>	<p>Opportunity for more formal consent procedures. Slow speed of response (compared to adults) should be taken into account when deciding how many questions or topics to cover.</p> <p>Children at this age may still wish to please by providing 'correct' answers – tendency may be enhanced by school contexts that are strongly oriented around right and wrong answers.</p>
13/14–16/17	<p>Will respond almost as adults, but some differences remain.</p> <p>May still tend to defer, and are likely to try to align their responses with social expectations.</p>	<p>Speed of response still slower than for adults.</p> <p>Strongly subject to peer and social norms, so the context in which an interview/survey takes place is likely to influence their responses.</p>	<p>Usually still regarded as 'minors' and therefore subject to parental consent, even if they have the capacity to consent themselves.</p> <p>May feel more confident in responding with parental sanction.</p>



Peers are important at these ages.

Characteristics of the interviewer may also influence their responses.

Ethical issues must be suitable to context, and understanding of children.

Are likely to have a limited understanding of what will be done with their responses, of issues of data security and research itself.

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Summarised from Borgers et al. 2000; Curtin 2001; de Leeuw et al. 2004; Greig et al. 2007; Ólafsson et al. 2013; Read & Fine, 2005.

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