

Drug and Alcohol Knowledge and Use Amongst Primary School Children

Empirical Evidence and
Methodological Issues in the
Development of Instruments for
Measuring Use of and Attitudes to
Drugs and Alcohol in Primary School
Children

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**A Report Prepared for the Drug and Alcohol Information and
Research Unit, Department of Health, Social Services and Public
Safety**

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Executive Summary

1 Setting the Scene

- There has been a substantial increase in the use of illicit drugs in the past decade, particularly amongst young people
- The UK Government responded to this by launching its anti-drugs initiative *Tackling Drugs Together* from which the Northern Ireland drugs policy found its origins.
- From within this policy the Northern Ireland Executive established a number of working groups to operationalise this policy
- One such group, the Information and Research Working Group, identified a need to conduct research into the knowledge and use of drugs and alcohol amongst primary school children aged 8-11 in line with the Northern Ireland Drugs Strategy

2 Existing Empirical Evidence on Drug and Alcohol Use Amongst 8-11 Year Old Children

- Very limited empirical evidence exists on the drug using behaviours of those aged 8-11 years. In Northern Ireland this is almost non-existent.
- Much existing empirical evidence on drug use for this age group records attitudinal information rather than prevalence rates. Existing prevalence rate data refers mainly to tobacco and alcohol use.
- Some studies quote retrospective data which suggests that a small number of children begin to abuse substances between the ages of 8-11 years but little more is known.
- Whilst a range of data collection approaches have been developed for research with 8-11 year olds, questionnaire surveys remain the most popular method.

3 Surveying 8-11 Year Old Children on Drug and Alcohol Use

- In all stages of the design of the research, the cognitive development of children aged 8-11 years should be taken into consideration.
- Two possible research approaches, questionnaires and the Draw and Write technique are suggested for the proposed research.
- An essential stage in all empirical research is the pilot. This is particularly crucial for the proposed research due to the limited empirical base upon which the researchers can draw.
- It is suggested that data collection be undertaken within the school and should include all children within the 8-11 age group for whom consent to participate is obtained.
- A sampling strategy that includes children from all types of school management system in Northern Ireland should be developed

4 Practical and Ethical Considerations for Undertaking A Survey with Primary School Children

- A strategy for contacting schools should be developed starting with an approach to each school principal
- Parental/guardian consent must be obtained from all participating children.
- Children must have the importance of confidentiality explained to them and assured of this as part of their participation in the survey.
- Respect for the rights and dignity of children participating in the survey must be assured at all times.
- The development of a school information pack would assist researchers from the point of contact with schools through to completion of data collection.

Recommendations

- A small scale study of 8-11 year old school children to be undertaken in which a small number of children complete a questionnaire and the others, the Draw and Write technique.
- Such a study should include measurement of prevalence and attitudinal data in relation to substance use for tobacco, alcohol, and to consider the inclusion of questions in relation to solvent abuse and the use of cannabis.
- The outcome of this can then inform DAIRU of the feasibility of a large-scale survey.

Appendices

- Several alternative approaches for undertaking research with children are suggested including one-to-one interviews, focus groups, and web-based surveys.
- The advantages and disadvantages of each approach are presented here.

1 Setting the Scene

1.1 Introduction

Illicit drug use, for many years part of the social agenda of many countries, is now firmly on the political agenda as never before (Plant and Plant, 1999). This resulted from the significant rise in the levels of drug use and the problems associated with this behaviour. Illicit drug use amongst young people has risen steadily over the past 30 years in the UK and beyond (Miller and Plant, 2001). In particular, the availability and use of illicit drugs is increasing rapidly in the UK amongst young people of all social backgrounds. In their early and mid-teens young people are experimenting with a growing repertoire of illicit drugs and for a considerable minority illicit recreational drug use is a regular part of their leisure time.

In the 1990s a drug problem in Northern Ireland began to surface in the official discourse. In 1996 the Northern Ireland Affairs Committee in its session on illicit drug use noted "a significant growth in the use of 'recreational' drugs" (p.xvii) and that "Northern Ireland no longer has relatively low illicit drug use it once seemed to have; illicit drugs particularly 'party drugs' are regularly available to potential users including school children, all over Northern Ireland" (ppxiii, xxvii). Higgins and McElrath (2000) more recently noted that "concern surrounding drug use is gaining momentum in Northern Ireland" (p.36). The evidence of a growing drug market in Northern Ireland is contained within three indicators. These are self-report surveys; public health indicators and risk behaviours; and law enforcement.

Self-report surveys on drug misuse in Northern Ireland have been collected since 1992. This contrasts with a long history of such studies in both Britain and the United States. Cannabis, the most popular drug with prevalence rates varying from 7.5% for a cohort of 11-16 year olds (Northern Ireland Health Promotion Agency, 1995) to 34.9% for males aged 15-16 and 15.9% for females aged 15-16 years (Miller and Plant, 1996). Other types of drugs used according to their popularity were LSD/Mushrooms; Ecstasy; and amphetamines. Use of 'harder' drugs such as cocaine and heroin was much less frequent with prevalence rates rarely rising above 1% for young people during the 1990s (reported in Higgins and McElrath, 2000).

1.2 UK Drug Policy

In 1994 the Conservative government responded to the increased use of drugs by young people by launching its *Tackling Drugs Together* initiative. This rested on three main assumptions: firstly, that young people are vulnerable to drug misuse as a result of succumbing to peer pressure, secondly, that drugs are both a danger and a menace, and thirdly, that drug users pose a threat to local communities because of the crime in which they engage to fund their drug taking activities. The Labour government, which came to power in 1997, continued the offensive with its new ten year anti-drugs strategy introduced in 1998 (President of the Council, 1998) *Tackling Drugs to Build a Better Britain: The Government's Ten-Year Strategy for Tackling Drug Misuse*. This wide ranging anti-drugs strategy has four objectives which have been agreed by Ministers in the Four regions of the UK. It is against this background that the *Northern Ireland Drugs Strategy for 1999-2004* is set and

embraces the UK wide corporate aims, key objectives and related key performance targets, and includes objectives outcomes specifically related to Northern Ireland (DHSS, 1999). Its specific aims are to protect young people from harm resulting from illicit drug use; to protect communities from drug related antisocial and criminal behaviour; to enable people with drug problems to overcome them and lead healthy and crime free lives; and to reduce the availability of drugs in communities.

Under the aim ‘to protect young people from the harm resulting from illicit drug use’ the Northern Ireland Drug Strategy states that a key target for drug prevention work is young people. For the purpose of the strategy ‘young people’ are defined as being between the ages of 8 and 25. Research in Northern Ireland over the last five years, both qualitative and quantitative, has enabled us to get a picture of the development of a growing drug situation, which presents a wide range of issues and challenges for organisations working on drugs issues (NI Drugs Strategy 1999-2004).

However, it states that research carried out in Northern Ireland has demonstrated that the level of knowledge held by young people about illicit drugs, their effects and the associated risks is incomplete.

Within the Northern Ireland Drug Strategy, the Government has set the following objectives:

- To ensure that young people between the ages of 8 and 25, drug users and non-users, are informed of the effects of drugs and their dangers appropriate to their age, understanding and stage of personal development;
- To ensure that young people between the ages of 8 and 25 receive appropriate drug education;
- To provide appropriate training in drug education techniques for those who work with and/or are responsible for young people; and
- To ensure that the treatment of the young are identified and provided.

A prerequisite for fully achieving these aims is an adequate information base. To some extent this exists for young people aged 11+ but amongst those aged 8-11 years it is virtually non-existent in Northern Ireland with a very limited information base in the UK and beyond.

1.3 The Current Study

In May 2001 the Northern Ireland Executive endorsed a model for the joint implementation of the drug and alcohol strategies. Under the joint implementation model, six new working groups were created to take forward areas of work common to both strategies. One of these groups, the Information and Research Working Group (IRWG) was tasked with developing new information and research programmes in support of the two strategies. One such research task identified by the group was the need to conduct research into the knowledge and use of drugs and alcohol amongst primary school children aged 8-11.

Whilst information on drug use amongst young people of secondary school age has been growing over the past decade, information on alcohol and drug use, and knowledge of alcohol and drugs amongst young people of primary school age is much

more sparse. The IRWG is considering the feasibility of undertaking a survey of primary school children as part of the process of addressing this information gap. The current project will examine the feasibility of such a survey in Northern Ireland.

1.4 Research Objectives

The overall aims of the project are three-fold:

- To review recent evidence about the prevalence of drug use (including solvent use) and alcohol consumption amongst children of primary school age and about their knowledge of drugs and alcohol, including their effects. Primary emphasis will be on evidence from the British Isles, although key findings, where appropriate from other countries will be highlighted.
- The project will explore issues in the design of a study for primary school children aged 8-11 years that will elicit information covering their knowledge about alcohol and drugs, choice of research approach and possible sampling strategies. The research will determine the feasibility of an appropriate survey instrument for exploring these issues with specific guidance on the development of an appropriate research design instrument based upon the findings of this project. The project will also consider the suitability of any approaches for the full age range 8-11 and indicate if different methodologies need to be explored in relation to children of different ages.
- The project will consider practical and ethical issues in carrying out sensitive research with children in the 8-11 age group and will indicate how these might impinge on any research.

2 Empirical Evidence on Drug and Alcohol Use Amongst 8-11 Year Old Children

2.1 Introduction

The sensitive nature of the issue of drugs and young children was highlighted by Balding (1989) in the 'Just a Tick' survey which highlighted that although parents were generally supportive of alcohol and smoking education, teachers and health professionals were more cautious especially with regard to young children. This has only served to highlight the importance of dealing with the issue. Although research in this area is patchy, some of the studies which have attempted to ascertain the level of children's knowledge and/or use of alcohol and drugs are discussed below.

2.1 The Northern Ireland Evidence

The Health Promotion Agency for Northern Ireland's study, "Drugs: What Young People Know" (HPA, 1998) was the first large-scale survey of young people's knowledge and awareness of illicit drugs and solvents to be carried out in Northern Ireland. The study included 3560 10-17 year old young people, 1877 of who were in the 10-13 age group. The survey was carried out using a computer assisted programme and also focused on attitudes towards information on drugs, where the children received it and where they would be most likely to seek it.

The researchers examined unprompted awareness of names for drugs, prompted awareness for names of drugs and knowledge of drugs. This was followed by awareness and knowledge of specific drugs and solvents such as cannabis; LSD/Magic mushrooms; ecstasy; amphetamines; cocaine; heroin; solvents. Each of these drugs was then considered separately under the following headings: prompted awareness of the drug; what is the drug and how is it taken; feelings about the drug; perceived harm of the drug; impressions of the user of the drug; knowledge of the legal status of the drug.

The younger age group in this survey were able to name ecstasy (54%), cocaine (34%) and heroin (24%) spontaneously, however when prompted, these figures rose to 57%, 67% and 55% respectively. Cigarettes (72%) and alcohol (71%) were most recognised and the fact the children didn't refer to them unprompted may mean that they don't even recognise these as 'drugs'. Furthermore, the children's perception of the type of person who would use drugs was highly stereotypical, often portraying them as the 'baddie', but never as 'normal'.

In the younger age group, a fifth felt they knew nothing or very little about drugs, a quarter felt they knew a little but not enough, while over a third felt they knew quite a lot but were unsure of their own knowledge. Seventeen percent felt that they knew more than enough. It was also found that awareness increased with age but that both the younger and older age groups were more aware of cannabis than any other illicit drug (in terms of prompted awareness). The younger age group however was less likely to be able to define the feelings that are commonly associated with certain drugs.

Although the media was identified as a common source of information on drugs, almost half of all the young people had discussed drugs with their parents, 33% with a teacher and 23% with friends. While 81% of this age group wouldn't mind receiving more information about drugs, their preference of information source would be a drugs helpline (67%) with only 34% identifying their parent(s) and 16% their teacher as preferred sources of information. However, when asked who should be providing this information parent(s,) (61%), teacher (40%) and doctor (40%) came top of the list.

In general the HPA findings indicated that many of the sample, but particularly the younger children had a relatively crude understanding of drugs. Younger children tended to treat all drugs the same in terms of their attributes and effects. The research also highlighted that a large proportion of the 10-13 year olds felt that they did not have enough information on drugs. Although this age band encompasses some primary school children, they were not defined separately for the purposes of the study and it is therefore difficult to highlight the specific findings for that particular group. Finally, the children's perceptions of the type of person who would use drugs was highly stereotypical often portraying them as the 'baddie', but never as 'normal'.

The Health Behaviour of School Children in Northern Ireland (A report on the 1997/98 survey) was a unique cross-national research study conducted in collaboration with the European Region of the World Health Organisation. This survey collected information on drugs in the context of an overall health survey. For example information was gathered on things such as demographics, smoking, drinking (as well as young people's knowledge and experience of drugs), psycho-social aspects of health, school environment and sexual behaviour. The target population was 11-16 year olds, which included a sample of 484 children in the primary school sector.

The main findings showed that tobacco use increased across all age groups while the incidence of drunkenness in Northern Ireland, England, Scotland and Wales was consistently high across all age groups compared to the other countries surveyed. In terms of smoking, the average age of trying their first cigarette was 11 years for boys and 11.5 years for girls, while almost 28% had had their first cigarette by age 10. The findings of this study also showed that 4% of the primary seven year olds in the sample claimed to drink at least weekly, and while 2% claimed to have tried drugs (not solvents) at least once, none were designated as 'regular' drug users (i.e. using drugs a few times a month or more). However, of the 23% in the survey who had been offered drugs at some stage, 5.1% of these had been offered drugs at age 10 and under.

2.3 The UK Evidence

A study carried out by McKeganey et al (2003), surveyed 2,318 preteens (aged 10-12) in Glasgow and Newcastle, and interviewed a further 216. The aim of the study was to identify the extent to which the children had been exposed to legal and illegal drugs, the extent of their drug use, and the contextual factors associated with drug use and drug exposure. As with other studies, this one included a sample of primary school children although these were not differentiated from the others.

The researchers found that 31% of the children had been exposed to illegal drugs while 9% had actually been offered them. Cannabis was the most commonly used illegal drug and while around 6.5% of the sample had tried it, others thought it was legal and not harmful. Illegal drug use was also higher amongst the older children in this sample than the younger ones.

Although around a quarter of the children could make little distinction between different drugs and the severity of their effects, the rest could distinguish different substances, especially cannabis, although it was often described as being harmless. Most of the children also articulated a negative view of illegal drugs as a whole, but were often vague and mistaken in their knowledge when it came to individual drugs.

The study highlighted the fact that many of these preteens would have liked more information on certain topics, especially about the effects of different drugs, how to recognise them and how to deal with situations where they might be exposed to drugs or offered them. However it was also clear from the research that even within this age group, children differ considerably, from those who know relatively nothing about drugs, to those who have tried heroin. This presents particular challenges, especially in relation to drug education.

Another survey, 'Very Young People in 1993-5' (Balding, 1996), was one of a series of projects with young people carried out by the Schools Health Education Unit. This project focused on 18,929 children between the ages of 9 and 12 and included a short section (8 questions) on tobacco and alcohol use. Although only about 1% of 9 to 11 year olds were designated as 'current' smokers, around 12% of them said they had tried smoking at some time. Around 19% of this group also stated that they definitely or at least maybe thought that they would smoke when they were older.

As for alcohol, the different types of drink tasted included: shandy (65%), beer (59%), cider (38%), wine (70%) and spirits (28%), and over 25% of primary school boys and over 15% of girls had drunk 'more than a sip' of alcohol in the last 7 days. When asked if they had talked to others about drugs, more than half the young people in this study had talked with their parents about illegal drugs, 32% with a teacher and 23% with friends. The proportion of teachers suggests that the topic of drugs was covered by about a third of the primary schools surveyed.

2.4 Empirical Evidence Using the Draw and Write Technique

Other studies with young children have used an innovative approach known affectionately as 'Jugs and Herrings'. This is a seven-step 'Draw and Write' strategy developed by Noreen Wetton, an Education Consultant from the University of Southampton. It has been used nationally and internationally over the last 15 years, to tap into children's perceptions of drugs, drug users and drug use. One such study was carried out by the Health Education Authority (HEA, 1986), which looked at over 2000 4-11 year olds in Nottingham and Hampshire in the context of an overall health survey. The findings showed that the older children in the sample had extensive knowledge about illegal drugs, and that by age 8 there was a considerable jump in knowledge of hard drugs with more than a quarter of 8-9 year olds being able to name

heroin or cocaine. One in ten children used the word 'addict' and when asked about the dangers of drugs, 90% of the children thought in terms of hard drugs and thought of them as 'bad'.

However, it was also clear that the children were confused in their thinking about the value of drugs as many of them believed that drugs could never be good, a concept which does not allow for drugs as medicines. In the 10-11 age group, 69% of the children mentioned heroin or cocaine (a considerably higher number than the HPA study found for their 10-13 year olds) and many can explain how the drugs are used and what their effects are. However, even at this age the researchers found that the children found it hard to see both sides, thinking that either drugs were good when used in the right way OR bad when used in the wrong way.

This methodology was recently used in a study of 400 children's knowledge of alcohol (Smart, Wetton and Collins, 2002). The findings of this study again showed an increase in knowledge of alcohol at 8 years old. For example, from this age the children were steadily more likely to interpret 'I want a drink' as 'I want an alcoholic drink'. The impact of advertising was also highlighted in the study, which showed evidence of the children's knowledge of a wide range of brand name drinks. This number increased quite dramatically with age, as 46 brands were mentioned at age 8 and 120 by the age of 11. From the age of eight the children were also able to cite examples of alcohol-induced behaviour including 'sleep, dizzy, sick' (35%; knowledge increased steadily through age groups), 'anti-social, stupid things' (42%; knowledge emerged at age 8 and gradually increased), 'car related theft and dangerous driving' (20%; knowledge highest among 11 year olds), and violence (21%; gradually increasing from age 8 to 10 and doubling at age 11). The authors believe that the source of these opinions may be news sources in the media and TV programmes. This may reflect to a certain extent the HPA's findings of the media being an important source of information about drugs for young people.

When children were asked to name any drinks with alcohol in them by Smart and his colleagues, 85% mentioned beer, 81% mentioned wine and 55% mentioned spirits. While there was a slow increase in knowledge of where in the body alcohol would go and its impact, the largest number of children knew that it went to the stomach (52%). Forty-four percent suggested that it went to the head or brain (mainly 9-11 with some 8 year olds), while 25% were able to name other organs affected by alcohol (9-11 year olds only). However, the long-term impact of alcohol was generally too difficult a concept for the children to understand.

In summary, the evidence from these studies and others (Borgers et al, 2000) indicates that it is possible to do research with 8-11 year old children on substance use. By the age of five, some commentators claim that basic opinions and knowledge, at least of the more commonplace drugs like alcohol, are already becoming established (Fossey, 1994; Zucker et al, 1995). It shows that even at the younger ages there is a clear knowledge and awareness of many drugs even though certain areas of knowledge may be sketchy, and understanding of drugs a little simplistic (e.g., in terms of them being good OR bad, HEA, 1986). The HEA study also showed that children's attitudes about drug users are often media driven and quite stereotypical. Although evidence has been found of alcohol and tobacco use among 9-12 year olds, there don't appear to be many examples of studies which have asked about 'other' drug use amongst this

age group, or others' use of drugs and none about the effects that may arise from using drugs.

While basic evidence would point to the fact that young children of primary school age tend not to be regular drug users, or even have a completely lucid understanding of all the different aspects of drugs, the evidence we have to date supports the notion that there is more knowledge among primary school children than we might normally give them credit for. The fact that their knowledge may be sketchy in parts only serves to support the notion of doing further research in this area. A major challenge for those at the drug education end is to tailor approaches that are appropriate for all young people. This means taking into consideration those young people who do not have any knowledge of or interest in drugs, while also taking account, without stigmatising, those who have already started using illicit drugs (McKeganey, 2003)

2.5 Retrospective Empirical Evidence on Drug and Alcohol Use Amongst Young People

Some studies quote retrospective data on age at drug use onset, which suggest that a small number of children begin to use substances between ages of 8-11 years. These studies include the Young Persons' Behaviour and Attitudes Survey (YPBAS, 2000), which asked children in Forms 1-5 / Years 8-12 about the age they first tried particular drugs and the Youth Development Study, currently underway in Northern Ireland. In the latter study, 11-12 year olds were also asked about drug use and how old they were when they first started using particular drugs. For smoking, the majority (11%) of children said they were 11 years old when they first smoked a cigarette, 9% said they were 10 and 13% said that they were 9 or younger. For alcohol, the majority of the sample (20%) claimed to be 11, 15% said they were 10, while 22% claimed to be 9 or younger when they tried their first drink. Of those who had been drunk, 9% were 11 and 4 % were 10 at age of first intoxication. In the YPBAS (2000), 17% recalled having their first cigarette at 11, 10% at 9, while 8% were between the ages of 5 and 8. The majority however could not remember the age they had their first drink, while 13% said they were 11 and 8% age 10 at use of onset, and a further 9% said they were 9 or under.

While caution is advised when interpreting this type of data, due to methodological difficulties associated with consistency estimations and logical errors (Bailey et al, 1991), the above findings none the less offer further evidence of drug usage among children of primary school age

3 Surveying 8-11 year old children on Drug and Alcohol Use

3.1 Introduction

This section presents an outline of the proposed method of data collection recommended by the authors and the reasons for choosing this approach. The recommendations of the authors are based upon the experience of researchers in the field that has guided our thinking along with our own experience. An important aspect of all research with human subjects is to understand the sample being investigated as well as possible before carrying out research. This is particularly relevant to the proposed sample for DAIRU which, as Section Two has highlighted, has received very limited attention in the literature in relation to drug use, with more general methodological knowledge on how to survey children still scarce compared with adolescents and young adults. However, even though young children do not perform as well as children with higher levels of education, their performance is still acceptable in research surveys. A well designed and tested measuring instrument is a prerequisite for good data quality, but a good quality survey of young children needs more. For example, surveying children has special problems, the survey design should be tailored to their cognitive and social development. To achieve this it is important to understand the cognitive abilities of the children being surveyed, particularly in relation to their developmental stage. The authors recommend two approaches are considered by DAIRU, a questionnaire and use of the Draw and Write technique developed by Noreen Wetton and her colleagues. These approaches will offer opportunities to collect either quantitative or qualitative data, or a combination of both from children in the 8-11 age group. This recommendation will underpin all aspects of the research approach suggested for the present study. However to successfully achieve this a full understanding of children aged 8-11 years as a group to be researched is essential.

3.2 Developmental Stages and their Relevance for Surveying Children

Children develop, and learn in the process. This makes it very difficult to develop a single fail-safe method to survey all children. A global classification of the developmental stages of children is therefore helpful to assist us when surveying children, and Piaget's (1929) theory of cognitive growth provides a useful tool to guide researchers in this respect. According to Piaget, children's intellectual development evolves in a fixed sequence of stages. These are:

- (1) *Sensory-motor intelligence*, from birth until about 2 years
- (2) *Preconceptual thought*, from 2 till 4 years,
- (3) *Intuitive thought*, from 4 till 7- 8 years,
- (4) *Concrete operations*, from 8 till 11 years, and
- (5) *Formal thought*, which develops between 11 until 15-16 years of age. From the age of 16, the cognitive capacities are, in general, fully developed.

It is now generally accepted that the stages tend to overlap and the boundaries are more fuzzy than Piaget claimed. Also at any specific stage, children's abilities vary, depending on heredity, learning, experience, and socio-environmental factors. However, children's cognitive capacities do clearly increase with age, and the basic

levels of cognitive development are extremely important for understanding the question-answer process when studying children, and for discovering the ways in which children differ from adults. An understanding of the concrete operations stage of development is of particular interest to the proposed research being considered by DAIRU.

3.3 The Concrete Operations Stage (8-11 Years)

In this period, language develops and reading skills are acquired. Children begin to learn classification and temporal relations, but they still have problems with logical forms, for instance with negotiations. They are very literal in 'depersonalised' or indirect questions. However, language and reading skills are sufficiently developed to use individual or group semi-structured interviews, structured interviews, self-administered group tests, or even computer assisted self-interviews. In a range of different questions, children of this age group can answer well designed questions with some consistency. But many precautions should be taken, and care taken to write appropriate questions and test and pilot the questions fully before undertaking the main data collection phase of the study.

From 8 years onwards, children can be surveyed with questionnaires. This is also the age at which educational researchers start with self-administered tests in the classroom. However, questionnaires have to be specially developed for this group as standard questionnaires for adults are inappropriate. But it is not easy to survey this age-group successfully. The questionnaire must be designed very carefully with researchers fully aware of the fact that language is still developing, and that the children are only just acquiring reading skills.

3.4 The Question-Answer Process and Developmental Growth.

The question-answer process is central to a successful survey. When undertaking research with children, the cognitive growth of children has profound implications for the question-answer process. The stage of development of a child will influence their performance on each of the tasks involved in answering a question. The children have to understand the question, determine the intended meaning, retrieve relevant information from memory, and use this to come to a tentative answer, formulate the answer, either by choosing the appropriate response category, or by actively verbalizing their thoughts. Piagets theory combined with the question-answering process and the satisficing theory helps explain why young children may have more difficulties with cognitively demanding survey questions than older children.

Krosnick's (1991) satisficing theory postulates that a respondent gives a more or less superficial response than appears acceptable, without going through all the steps in the question-answering process. Low motivation, difficult questions, and low cognitive abilities may lead respondents to provide a satisfactory response instead of an optimal one. Implicitly, the theory assumes an interaction effect between the respondent's characteristics and question characteristics, because less cognitively sophisticated respondents are more sensitive to difficult or cognitively demanding questions. Since answering questions seems to be a more difficult task for children than for adults, one may expect that they have to resort to a satisficing strategy more often. To the extent

that satisficing will lead to more errors in the response process, it can result in less reliable responses than using an optimising strategy.

When surveying children in the 8-11 age group, researchers should be aware of satisficing but also acquiescence which can originate in a lack of concentration or motivation. As already suggested, children use satisficing techniques (e.g. response set) when they find the subject boring, or when they are unsure of the meaning of the question. Acquiescence response set is a tendency to agree with attitude statements presented to them. When children are offered two alternatives such as true/false, like/dislike, and there are many positive answers, they may be using an acquiescence response set which can make false items more valid and true items less valid.

3.5 The Proposed Research Design

There are a number of possible approaches to data collection from children in drugs research. These include one-to-one interviews, focus groups, the 'draw and write' technique developed by Noreen Wetton and her colleagues, web-based surveys, and questionnaire surveys administered in the classroom. The authors propose that DAIRU consider either a questionnaire survey or the utilisation of the Draw and Write technique, or a combination of both approaches. The questionnaire approach will enable researchers to collect quantitative data from either a small or large sample of children. This approach is particularly valuable for the collection of prevalence data on substance use. It also offers researchers the opportunity to collect additional data about attitudes to drug use but this may be more accurately obtained using the Draw and Write Technique which enables researchers to collect qualitative data from 8-11 year olds, particularly in relation to the experience of children, their knowledge and awareness of drug use. The issues involved in the development of a suitable questionnaire are outlined in section 3.6, and the value of the Draw and Write Technique for this age group is presented in section 3.7. The advantages and disadvantages of other approaches than questionnaires and the Draw and Write technique are outlined in Appendix I.

3.6.1 Questionnaires as a Data Collection Tool With Young Children

Questionnaires are usually constructed for a specific research topic and are an efficient way to collect information from large samples relatively quickly. They are a particularly useful way to collect confidential information as they can assist the researcher assure respondents of the confidential nature of their participation, particularly if names are not recorded on the questionnaire. The issues to be considered when developing a questionnaire include structuring the questionnaire; the types of questions; instructions to respondents; response options; the length of the questionnaire; and questionnaire administration.

Traditionally, when surveying sensitive topics, researchers use self-administered questionnaires, either in a postal survey or as a pencil and paper questionnaire that is distributed by a researcher. Self-administered questionnaires have the advantage that they evoke a greater sense of privacy and can lead to more self-disclosure. Empirical research has shown that self-administered questionnaires when compared to

interviews produce more valid reports of sensitive behaviour and less socially desirable answers in general. However self-administered questionnaires have one serious drawback, particularly with children as only relatively simple questionnaires can be used with the 8-11 age group.

3.6.2 Developing a Questionnaire for 8-11 Year Old Children

Dutch researchers start using paper and pencil questionnaires at age 8 years, since by that time children have sufficient reading and writing skills to complete a questionnaire. Others have developed questionnaires with teachers and pupils. These are usually quite short, for example, Balding and Shelly used only 17 questions on diet, leisure activities, self-esteem, smoking, alcohol and sports.

Some researchers have found that very young children produce less item nonresponse with sensitive items in surveys. In addition, these children do not produce more item nonresponse for items with ambiguous response scales, while children with more years of education do. These results are interesting, and are likely to be associated with the developmental stage of these children because children in this age group are very literal in their interpretation of words and also limited in their language development. It is likely that these children do not recognize the ambiguity of the words in the response scale.

A number of item characteristics should therefore be considered when designing a questionnaire for children. Firstly, item nonresponse can be reduced by changing the position of items in the questionnaire. Secondly, a clear and extensive introductory text in a questionnaire, can help prevent item nonresponse to some extent, while also putting the children at ease, especially with a strange researcher. It will also give them a clearer understanding of the task at hand.

3.6.3 Structuring the Questionnaire

The order in which the questions are asked may affect the response of children in a variety of ways. Some of the effects are primarily motivational. To increase a child's collaboration, the first questions in the survey should be easy and provoke interest. For example questions about their favourite television shows, hobbies and favourite activities. The quality of the early questions is particularly important for children who may refuse to continue with something that seems boring. Generally speaking, early questions should direct the child's attention to a given set of information to increase cognitive accessibility. Moreover, difficult or threatening questions should be placed later in the questionnaire to allow the children the opportunity to feel comfortable about answering questions.

3.6.4 The Types of Questions to be Developed

Careful construction of each question to avoid ambiguity, biased or confusing wording of the questions is essential. Viewing the topic from the child's perspective is primary to determine if the child is likely to view the topic differently than an adult

especially as they are apt to interpret questions quite literally. In one example researchers found that when children were asked if they had been on a school field trip this year the answer tended to be 'no', even though the children had actually been on a class field trip. Asking the right questions in the right way is the essence of a good questionnaire survey.

In addition children may have difficulty understanding indices designed to measure relative rates of participation. They want clear definitions (i.e. what does 'almost always' mean?) of each item. For example, fixing an event in time is difficult for children. It taxes their memory and they tend to respond to most questions as if they had been asked, 'have you ever?' To help children fix an event in time a question should be framed within some specific time period, for example, 'during the last school year did you go to the zoo?' or 'When are your music lessons given?' During school hours, before or after school, both or can't say?'

Until recently, general practice has been to make all questionnaires and questions as short as possible with young children. However some researchers claim that for children, longer questions provide memory cues and act as a form of aided recall. For example, 'When you go to the swimming pool, do you usually do that – *during* regular school hours, *before* school or *after* school?' Longer questions also take more time to read, giving the child more time to think. All else being equal, the longer the child spends on the memory task, the more will be remembered.

It is advisable not to use negatively phrased items as young people have problems with them. Their literal interpretation of words means that they tend to have difficulties with negations. This is contrary to the general practice with adults, where one often uses numbers of positive and negative statements in ratings or psychological tests to avoid response sets, such as 'yeah-saying'. Ambiguity in questions, either in the question itself or the response categories (e.g. vague quantifiers), also has a strong effect on data quality, especially with younger children. When speech is ambiguous young children often find it difficult to distinguish between what is said and what is meant.

3.6.5 Instructions to Children

When preparing the questionnaire it is important to take care that both questions and instructions are simple and that the wording is clear and unambiguous. If possible, use visual stimuli to make the task more concrete and interesting. Response cards are also very helpful, as young children tend to forget even a limited set of instructions/responses.

3.6.6 Response Options

Studies on surveying children have shown that completely labelled response options can help them to produce more reliable responses. They suggest that different types of response options can lead to substantively different structural models. For example, offering vague quantifiers in questions about frequency of behaviour produces difficulties for children because they need clear definitions. Another example is partially labelled options, which lack clear definitions of the offered response options. Some children aged 8-11 years are limited in their logical and abstract thinking and it will be very difficult for them to interpret and translate the options themselves.

Examples of response options to be offered in questionnaires

Completely labelled vague response options: 1= never
2= rarely
3= sometimes
4= often
5= very often

Completely labelled clear response options 1 – never
2 – less than once a month
3 – about once a month
4 – once a week
5 – daily

Vague quantifiers and partially labelled response options could produce less stable responses because these questions require logical and abstract thinking, which should lead to more variable responses over time. In addition these formats should be more difficult to cope with for younger children (before the formal thought stage). Many of the problems with children's use of response sets can be overcome by careful wording and ordering of questions with the 'no opinion' or 'don't know' responses offered as alternative answers.

3.6.7 The Length of the Questionnaire

It is suggested that a questionnaire developed for the 8-11 years should be relatively short as long questionnaires can lead to a lack of motivation and difficulties in keeping up concentration which will result in poorer data quality. Balding and Shelley (1993) for example, developed a questionnaire with teachers and pupils which

consisted of only 17 questions. Considering the potential range of reading ability between children aged 8 and those aged 11, it is recommended that a core set of questions are developed for all children in this age band. These questions could, for example, measure drug prevalence rates for 8-year-old children which can also be used for older children within the age band. Such an approach could involve the development of several such core modules, the appropriateness of their use across 8-11 years could then be decided by researchers. For example, they may decide that all such modules will be completed by 11 year old children, but possibly only the module relating to prevalence rates will be completed by 8 year olds.

3.6.8 Administering the Questionnaire

Younger children may be taken through a survey question by question. A fixed period (i.e. one hour or shorter plus a break) should be allocated for this. It is important to reassure the children that their answers will not be read. For example, explain that their completed questionnaires will be sealed before their eyes inside a large envelope at the conclusion of the survey, that the people handling them know nothing about the school, and that they will be destroyed afterwards. If possible, negotiate with schools for the research to be administered by researchers in the absence of teachers. However, some schools may prefer teachers to be present in order to monitor the behaviour of the children during data collection, although they could be asked by researchers to be non-intrusive

Furthermore when reading out a questionnaire to young children, for example, Balding and Shelley (1993) asked the children to carefully fill in a practice page, and introduced an imaginary child-friendly character to the class to explain how to answer certain questions by circling a number or ticking a box. It is also recommended that the survey be undertaken during the winter (between Christmas and Easter) in order to avoid clashes with the transfer test (11+). However, this may clash with Key Stage 1 and 2 tests and should be negotiated individually with each school.

3.6.9 Piloting the Questionnaire

Questionnaires should be thoroughly piloted possibly including qualitative in-depth group discussions prior to questionnaire administration. Both questions and instructions should be piloted using cognitive pre-test methods to probe how the question is understood and why a particular answer is given. The questionnaire should be piloted, perhaps several times to highlight pitfalls and possible misinterpretations. These include:

- a) how long it takes to complete
- b) check all questions and instructions are clear
- c) remove any items which do not yield usable data.

Ideally the questionnaire should be piloted on a group of children similar to those who will participate in the study. The purpose of the pilot is to get the bugs out of the instrument so that children in the main study will experience no difficulties in completing it and so that you can undertake preliminary analysis to see whether the

wording format of the questions will present any difficulties when the main data are to be analysed.

During the pilot the following questions should be asked of participating children:

- 1 How did it take you to complete?
- 2 Where the instructions clear?
- 3 Were any of the questions unclear? If so, will you say which and why?
- 4 Did you object to answering any of the questions?
- 5 Was the layout of the questionnaire clear/attractive?
- 6 Have you any comments you would like to make?

Their responses will enable you to revise the questionnaire and make it ready for the main survey. It may take time to achieve a good standard of design and presentation, but if the presentation is sound, it will save you hours and even weeks of work at the analysis stage. When the pilot is complete, you are in a position to plan your data collection. The issues associated with this stage of the survey are addressed in section four.

3.7 Draw and Write Technique as a Data Collection Tool with Children

This approach was used in the Health Education Authority study (1986) which is referred to in Section 2.4 of the report and serves as an example of its value for obtaining information about drugs from children. The purpose of the work was to understand more about the knowledge, perceptions and understanding of drugs among a sample of 4 to 11 year old children. Rather than asking them the straight question “what is a drug?”, the researchers decided to approach this sensitive issue using a short story as an introduction, followed by 7 questions. This is the story as laid out in the study.

“(Girl’s name) was walking home when she found a bag with drugs inside it. Draw what you think was in the bag. If you can, write at the side what it is you have drawn. If you can’t write, whisper to me what it is you have drawn, and I will write it for you.”

The following questions were used:

1. *Draw what was in the bag.*
Write at the side everything you have drawn.*
2. *Who do you think lost the bag?*
Draw the person who lost it and write at the side the person or kind of person it is.*
3. *What do you think the person was going to do with the bag?*
Draw what the person was going to do and write at the side what the person was going to do.*
4. *What did the child do with the bag?*
Draw what the child did with the bag and write at the side what s/he did.*

5. *What would you have done if you had found it?*

Draw what you would have done and write at the side what you would have done.*

6. *Can a drug be good for you/help you? If so, when?**

7. *Can a drug be bad for you/hurt you? If so, when?**

* The children were told if you can't write it for yourself or want some help, whisper to me and I will write it for you. Don't worry about the spelling.

The main purpose of the draw and write technique is to discover children's knowledge, changing perceptions and understanding about the world of drugs. More specifically it can assist researchers to discover understanding of the term drug by young children; what a drug is for and different categories of drug; understanding of the type of people who children perceive as being involved in the world of drugs; understanding of when a drug can be harmful; and understanding of their own possible actions in situations involving drugs. There are a number of advantages and disadvantages to using this technique to obtain insights into the drug using behaviours of children aged 8-11 years.

The Draw and Write Technique offers the following advantages:

- Children have the opportunity to tell you as much as they want to tell you and more;
- It is easy to administer;
- Drawing followed by writing, or writing accompanied by a drawing, is a day-to-day activity found in every primary school;
- The questions and prompts, when carefully defined can elicit a wide range of illuminative responses;
- Researchers using this technique have found responses fall into a pattern which enabled them to make a broad analysis.

However, the following disadvantages are inherent in its use

- The technique was developed to discover the perceptions of children between 4-11 years about the world of drugs producing qualitative data which is more resource intensive to analyse fully;
- It is used for investigating children's perceptions of the world of drugs – not findings out if children were using drugs.

The Draw and Write technique will enable researchers to gather qualitative data on the experience of children in relation to drugs. A major advantage of this approach to data collection is that it utilises a method which will be familiar to children ages 8-11.

3.8 Sampling Strategy

The proposed sample will be aged 8-11 years. The size of the sample is at the

discretion of DAIRU but several factors are important to ensure its representativeness, from within participating schools and the different types of management systems for schools in Northern Ireland.

Within school. It is recommended that the survey adopt an approach within each school which attempts to include all those aged 8-11 years. This will involve administering the questionnaire in a classroom setting which offers flexibility when determining the number of children to include in the survey. Making this decision depends upon the scale of the survey and resources available to those undertaking the survey as a large-scale survey requires a high level of resource input from researchers.

Type of Management System. In Northern Ireland the majority of schools are managed either by an Education and Library Board or the Council for Catholic Maintained Schools. Some schools contain single gender and others are co-educational children. It is recommended that the sampling strategy for the proposed research include a sample that represents all types of management structure and all three types of gender make-up (all male; all female; co-educational).

4 Practical and Ethical Considerations for Undertaking Research with Primary School Children

4.1 Introduction

There is no doubt that surveying children aged 8-11 years raises important ethical issues that must be taken into consideration by researchers. At the very least we need to consider whether the questions to be asked might upset the children. In addition, this type of survey needs to be aware of the major developmental factors that affect children's interaction and communication with adults, which in turn will affect the information collected. However, the need to be aware of the practical and ethical issues relating to surveying children should be foremost in the researchers mind in a survey of the nature being proposed by DAIRU. This section will consider the practical issues involved in carrying out sensitive research with children aged 8-11 years, including accessing the sample; parental consent, participant consent, and confidentiality. One suggestion proposed for assisting researchers in addressing these issues is the development of a school information pack.

4.2 Accessing Schools

It is proposed that when a decision is made on the proposed sampling strategy and the schools to be considered for participation are identified, each school should be contacted individually. This should be done by writing to each school principal with a follow-up phone call made 1-2 weeks later in order to explain more fully the nature of the proposed research and the logistics of undertaking it within the school. It is at this point that a formal direct request be made to the school for their participation in the study.

4.3 Parental Consent

Parental consent is paramount to the success of the proposed research for a number of reasons. Firstly, schools will not agree to participate unless this is sought. It is also good ethical practice to obtain this consent which is achieved by writing to the parent of each child in the schools that have agreed to participate. Passive consent should be sought with the co-operation of the school.

4.4 Participant Consent

Only children for whom formal consent from a parent/guardian has been obtained should participate in the survey. However, it is still incumbent on the researcher to explain the purpose of the research to the children, explain what is being asked of them and obtain their agreement to participate in the survey before beginning data collection. There are two conditions to consent from the participant and both must be fulfilled. Consent must be voluntary and informed. Having obtained the consent of the child's parent/guardian, passive consent can be obtained verbally (i.e. those who do not wish to participate in the survey can exclude themselves before it starts).

Researchers should be alert to indications that a child is unwilling to proceed and be prepared with ways to facilitate withdrawal without loss of face or distress, for example, through the use of pre-arranged signals.

It is the researcher's responsibility to ensure, as far as possible, that these issues are understood by children participating in the survey. This must be done in language, and in a way, that they can understand and should include the aims of the research, the extent and duration of the participation requested. They must also be told the uses that will be made of the research, where the data will be held and who will have access. However, this is a particularly challenging aspect of surveying children as researchers have found that children aged 8-9 years do not always fully understand confidentiality which then calls into question their responses to survey questions. They should be given the opportunity to withdraw at any time. All information about the nature of the survey and its purpose should be given to the children in language that they understand.

4.5 Confidentiality

The research must ensure the confidentiality of all personal information relating to the children in the research, and that the research fulfils any related legal requirements, such as those of the Data Protection Act 1998. In the proposed research, data collected can also be obtained in an anonymous form, i.e. the identity of the children can be concealed. It is crucial to the success of any proposed survey that they understand what the researcher means by confidentiality. Failure to achieve this can have great consequence for the survey as it may cast a shadow over the validity of findings produced.

The responsibility of the researcher towards a child is made clear by the paramountcy principle in the Children (NI) Order 1995. If a child divulges information in the course of the research survey that could be grounds for a child protection investigation, the researcher, as a responsible adult, has a duty to take appropriate action on behalf of that child. The basic principles governing surveys with children should ensure that the children do not experience coercion and respect for the child's right to privacy as well as his/her right to give a viewpoint.

4.6 Respect for the Rights and Dignity of Children Participating in Survey Research

Researchers should treat children with dignity and respect. Special care should be taken as children are particularly vulnerable by factors such as age, social status and powerlessness. Researchers should be active in identifying and validating appropriate ways of communicating with children – verbal, non-verbal – e.g. art, pictorial. They should also give careful consideration to, and minimizing the use of research techniques, which might have negative social or personal consequences. It also means being responsive to non-verbal indications of distress or discomfort in such a way that any harm can be discerned and corrected. The researcher should be aware of the possibility of causing distress because of data sought, or methods used and possible long-term consequences of feelings aroused by the questions being asked.

The researcher may have to decide whether it is proper or appropriate to even record certain types of sensitive information. Researchers should be mindful of cultural, religious, gender, ethnic, developmental and other significant differences within the sample of children to be surveyed in planning and reporting research. They should strive to be inclusive.

4.7 School Information Pack

A useful starting point for any school survey is to provide an information pack for participating schools that will outline in a clear and concise manner the logistics of their participation in a research study. This should include:

The aim of the study

Who is conducting it

The participating sample

The process of contacting parents/guardians

Details of what happens on the day of the survey

The confidential nature of all data collected

Things for participating schools to think about (i.e. data collection arrangements)

Ethical considerations of the study.

This information pack can be distributed to schools as part of the initial contact or in advance of the data collection.

5 Recommendations

Whilst there are a number of potential obstacles associated with surveying children aged 8-11 years on sensitive issues such as substance use, this paper has attempted to make suggestions on how to overcome this. Whilst we feel that the contents of this paper should provide assistance to researchers wishing to undertake a survey of drug using behaviour with 8-11 year olds, we are particularly mindful that this work has not been undertaken to any significant extent in Northern Ireland or beyond. Therefore we are making the following recommendations based on the evidence presented in this paper.

Firstly, a small scale study to be undertaken involving a relatively small sample. This should consist of children aged 8-11 years in one school or a small sample of this age group in several schools to order to take into consideration the demographics of Northern Ireland.

Secondly, such a survey should follow the guidelines outlined in this paper including, for example, one session when the questionnaire is read out to the children.

Thirdly, a short questionnaire to be designed specifically for the survey being proposed by DAIRU be utilized. Questions in relation to attitudes and use of substance to be limited to tobacco, alcohol, solvents and cannabis or any combination of these as existing empirical evidence suggests their use by a small proportion of 8-11 year olds.

Fourthly, researchers undertake a small study using the Draw and Write technique for collecting qualitative data on the experiences of young children in relation to drug use.

Fifthly, the outcome of these studies can then be used to inform decision-making in relation to a large scale study of the drug use experiences of children aged 8-11 years.

Such an approach we feel, will provide DAIRU with both the experience and detailed insights necessary to successfully carry out the proposed survey, and also assist decision-making in relation to the method of data collection, that is, a single method, or an approach combining a questionnaire and the Draw and Write technique.

In conclusion, undertaking research with young children poses distinctive methodological problems for researchers. Most important of all, the questionnaire should be carefully developed and piloted thoroughly, the survey should be kept relatively short even if a combination of a questionnaire and the Draw and Write technique are used, and attempts made to make it interesting and attractive to the children participating in the study.

References

- Bailey, S.L., Flewelling, R.L. and Rachal, J.V. (1991) *The Characterization of Inconsistencies in Self-Reports of Alcohol and Marijuana Use in a Longitudinal Study of Adolescents*. North Carolina, Research Triangle Institute, Center for Social Research and Policy Analysis.
- Balding, J.W. (1989) *We Teach Them How to Drink*. Exeter, HEA Schools Health Education Unit.
- Balding, J.W. (1996) *Very Young People in 1991-2*. Exeter, Schools Health Education Unit.
- Borgers, N. de Leeuw, E. and Hox, J. (2000). Children as Respondents in Survey Research: Cognitive Development and Response Quality. *Bulletin de Methodologie Sociologique* 66, 60-75.
- Department of Health and Social Services (NI) (1999) *Northern Ireland Drug Strategy for 1999-2004*. Belfast: DHSS.
- Fossey, E. (1994) *Growing Up With Alcohol*. London: Tavistock/Routledge.
- Higgins, K. and McElrath, K. (2000) The Trouble with Peace. The cease-fires and their impact on drug use among youth in Northern Ireland. *Youth and Society*, 32 (1) 29-59.
- Health Promotion Agency for Northern Ireland (1998) *Drugs What Young People Know. Report on knowledge and awareness of drugs among 10-17 year olds in Northern Ireland*. Belfast: Health Promotion Agency for Northern Ireland.
- Krosnick, J. A. (1991). Response strategies for coping with the cognitive demands of attitude measures in surveys. *Applied Cognitive Quarterly*, 51, 201-236.
- McKeganey, N., McIntosh, J., MacDonald, F., Gilvarry, E., McHardle, P., McCarthy, S. and Hill, M. (2003) *Preteens and Illegal Drugs: Use, Offers Exposure and Prevention*. UK Department of Health.
- Miller, P. and Plant, M. (1996) Drinking, Smoking and illicit drug use among 15 and 16 year olds in the United Kingdom, *British Medical Journal*, 313, 394-397.
- Miller and Plant (2001) *Drinking, Smoking and Illicit Drug Use Amongst 15 & 16 Year Old School Students in Northern Ireland*. Belfast: Department of Health, Social Services & Public Safety.
- Northern Ireland Statistics and Research Agency (2002). *Young Persons' Behaviour and Attitudes Survey Bulletin*.
- Piaget, J. (1929). *Introduction to the child's conception of the world*. New York: Harcourt.
- Plant, P. and Plant, M. (1999) *Drinking, Smoking and Illicit Drug Use Amongst 15*

and 16 Year Old School Students in Northern Ireland. Belfast: Department of Health and Social Services and Public Safety.

President of the Council (1998) *Tackling Drugs to Build a Better Britain: The Government's Ten Year Strategy for Tackling Drugs Misuse.* Guidance Notes London: HMSO.

Smart, S., Wetton, N. and Collins, M. (2002) *On the Brink: Growing up in an Alcohol Using World.* Surrey County Council.

Williams, T., Wetton, N. and Moon, A. (1986) *A Way In: Five Key Areas of Health Education.* Health Education Authority.

Appendices

Other research techniques: Advantages and Disadvantages

This section describes other research methods used by researchers for obtaining data from children participating in research studies, and on the drug using behaviours of young people and adolescents. It is intended to present other approaches that DAIRU may wish to consider to the approach suggested by the authors of this report. These methods include one-to-one interviews, focus groups, the draw and write technique and web based surveys.

One-to-One Interviews

One to one interviews are the most popular form of data collection in the social sciences after questionnaires. Given the aims of the proposed DAIRU research one to one interviews with children may be a valuable source of data. However, relatively little information is available on the advantages and disadvantages of interviewing children aged 8-11 years in research studies at present. The existing evidence on the merits of this approach for interviewing adult subjects predominantly guides our thinking in this area. This should not eliminate its potential as a data collection approach in research involving children. There are in general three types of interview; structured interviews; unstructured interviews; and semi-structured interviews. When selecting and conducting an interview with children developmental factors relating to the children participating in the study must be taken into account by researchers, including for example, the language used. The advantages and disadvantages of this approach in relation to the proposed research are as follows.

Advantages of one-to-one interviews

- A focus on subjective experiences of the child;
- The collection of unique information;
- It offers observational opportunities for researchers carrying out interviews;
- It provide more opportunity to obtain a wide range of information and a flexibility to probe for details or discuss further issues that arise from the responses of the child.

Disadvantages of one-to-one interviews

- One to one interviews can be time consuming, especially if a large sample is required;
- As a result they usually result in a smaller sample of participants;
- They are an expensive method of data collection in comparison with a questionnaire survey for example;
- Qualitative data is time consuming to analyse;
- Resulting data analysis is not always as generalisable to the general population as quantitative data analysis.

Focus Groups

A focus group approach to data collection would involve simultaneous participation of a number of children to obtain data that is 'focused' on their attitudes to, and use of, drugs. It produces more in depth qualitative data on the drug using behaviour of children. This method would draw upon childrens attitudes, feelings, beliefs, experiences and reactions to drug use in a way which would not be feasible using other methods such as observation, one-to-one interviewing, or questionnaire surveys. The qualitative data produced from focus groups in the form of transcripts produced from audiotape or videotape (observational data). Children need to be encouraged to keep confidential what they hear during the meeting and researchers have the responsibility to anonymise data from the group. There are a number of advantages and disadvantages with the sue of focus groups in relation to this particular study.

Advantages of focus groups

- Focus groups are socially oriented as the children are asked to discuss matters in relation to drug use in a relatively natural situation (such as a small classroom);
- It is a flexible format which allows the researcher to explore unanticipated issues or approaches;
- It has high face validity;
- It is relatively low cost;
- It can be carried out fairly quickly as all the children can be gathered together relatively quickly in a school.

Disadvantages of focus groups

- Groups can be unduly influenced by a dominant child;
- Groups can go astray if the researcher is not skilled and informed in the topic of the study;
- Depending on their make-up comparative analysis between groups may be difficult;
- Groups can vary in the type of group dynamics which are generated;
- Qualitative data is generated which may be complex to analyse;
- Children may be reluctant to discuss drug use and related issues in front of their classmates.

Web Based Surveys

Web based surveys have become an increasingly popular method of data collection. The majority of studies using web designs tend to employ a questionnaire approach. A level of trust of participants on the part of the researcher will always be required, as is the case in traditional research. A number of tools and guides to aid the development of web based studies have become available.

Advantages of web based surveys

- Such research has the potential for gathering large volumes of data relatively cheaply greatly reducing the timescale of a piece of research;
- Accurately timing measurements can be fairly easily implemented, and provide a useful log of how long participants take to complete the questionnaire;
- Participants may be more candid in web based studies and social desirability effects may be diminished;
- The potential for anonymity could play a role in addressing researcher biases resulting from knowledge of biosocial attribute.

Disadvantages

- Internet samples maybe biased. A major concern with web-based studies has been the extent to which internet-accessed samples are ‘representative’;
- Internet-user populations are more likely to be technologically proficient and it is necessary for all schools to possess appropriate levels of computer hardware;
- Researchers have less direct control over, and knowledge of, participant behaviour.
- Researchers lose the opportunity to make observational notes.

Ethics in web based research

Many of the ethical issues raised in relation to web based research are still under discussion, and appropriate technologies for procedures for addressing these are still to be drawn up. While many of the ethical issues relate to the most appropriate ways of ensuring existing ethical codes are respected (such as how to properly obtain informed consent), others relate to new considerations that emerge as a result of the internet as a new communication medium and information resource. However, the following guidelines should always be followed

- Always obtain informed consent from participants prior to the study e.g. by asking them to tick a checkbox linked to a statement that they agree to participate which can cause logistical problems for the proposed study by DAIRU. However, traditional forms of parental consent by post can overcome this.
- Participants must be fully aware that they may withdraw from the study at any time, and make this easy to do by including a visible ‘withdraw’ button at all times.
- Participants must be provided with a ‘submit data’ button when the study is complete to make sure they understand and agree that their responses are being submitted to the researcher.
- After submission of responses, the participant should be provided with a ‘debrief’ page, and contact details of the researcher, in case they have any outstanding issues

- Participants should be assured of confidentiality of their responses, and appropriate data storage security measures taken to minimise the possibility of any parties gaining access to the study data.
- Carefully consider the implications of conducting research involving procedures that may cause distress to children, since it is typically less easy to detect and address such an outcome in web based surveys than in traditional approaches.

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