



# Measuring Impact: With, For and By Youth Organisations

IMPACT MEASUREMENT TOOLKIT



Co-funded by the  
European Union





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**Maynooth University**  
National University of Ireland Maynooth



# **Measuring Impact: With, For and By Youth Organisations**

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## Introduction

### What do we do?

Youth organisations play a pivotal role in the fabric of society. By creating spaces for personal development, we enable young people to flourish by fostering connection, solidarity, and effective interpersonal communication. Each of these skills forms a cornerstone for an individual's successful navigation through life, fostering self-confidence, resilience, empathy, and respect.

### Why is this important?

Throughout the history of youth work, its positive impact has been captured and presented through both traditional surveying methods and by illuminating narratives: individual success stories, humanitarian actions, or community development accounts. To truly understand the full extent of our impact and enhance our programmes for even greater effect, we recognise the importance of a robust research methodology appropriate to assessing the impact of our work.

### What is this manual all about?

To this end, we have come together to deliver a practical guide on impact measurement. This guide is designed to give youth organisations the resources they need to track and assess their impact systematically.

Join us as we embark on this learning journey, enhancing our understanding of how best to support young people. With the right tools and approaches, we can ensure that our interventions are not just well-intentioned but are truly effective in empowering the youth of today and tomorrow. Welcome to a new chapter in youth work, where measuring impact is as important as making it.

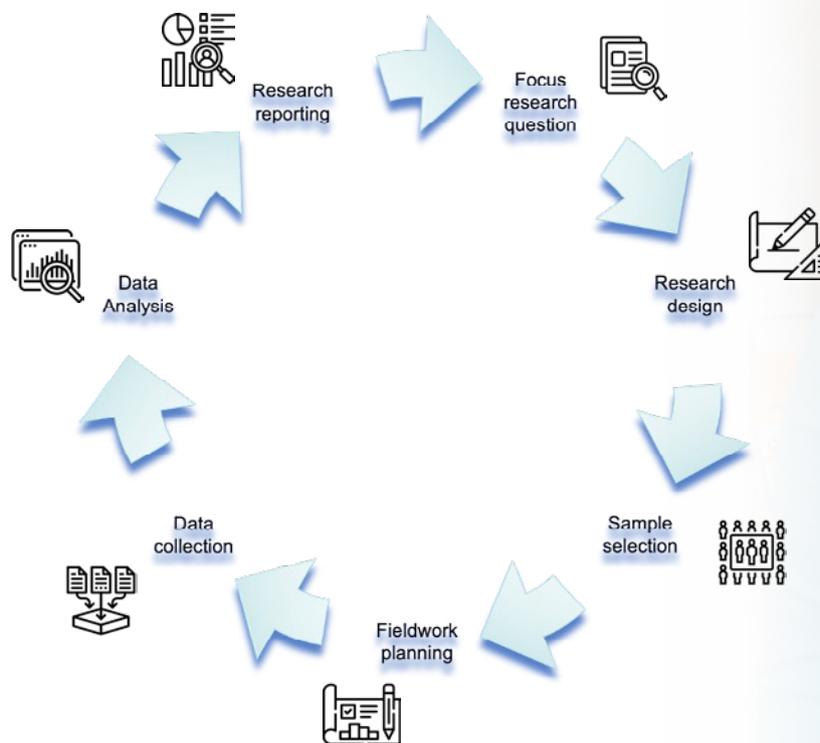
# Your Journey as a Youth Organisation:

## Steps in Research Process

Think of a research project as a journey on a circular path, not just a straight line. You start with a goal you care deeply about, like a mission to help your community. Then, you map out a plan on how to reach that goal. But here's the exciting part: this journey isn't just going forward. Sometimes, you'll loop back to an earlier spot. For example, while you're in the middle of planning your actions,

you might realise you need to clarify your mission. It's like walking on a spiral path – going back a little can help you leap forward in a better way. This cycle of planning, acting, and revising is what makes your project stronger and more effective. It's all about growing and learning, making each step count towards positive change.





### Step 1: Focus Research Question



Good news! We have this sorted out for you! The overall focus of this impact study is how youth organisations benefit young people and enable positive outcomes in terms of their personal development. For this purpose, we will employ the SPICES framework, which we've detailed in the next chapter.

### Step 2: Research Design



This stage of our study adopts a mixed methods approach, integrating quantitative surveys with qualitative focus groups to deepen our understanding of the research topic. The quantitative phase will involve collecting data on the perceived benefits of youth work through surveys. The qualitative phase, will offer insights into personal experiences within youth work by facilitating focus group discussions.

### Step 3: Sample selection



At this phase, we're focusing on how to select the young people who will take part in our study. For our mixed methods approach, this involves two key decisions: (1) for the survey portion, we aim to randomly pick a large group of young individuals to get a broad view. If we have a list of people we can choose from (that's our 'sampling frame'), we'll use it to ensure our selection is random and representative; (2) when it comes to the focus groups, we'll be more specific in who we invite. We'll purposely look for participants who bring a variety of experiences and backgrounds to the table. This is known as 'purposive sampling,' and it's all about ensuring we have a diverse mix of voices in the conversation. By carefully selecting our participants this way, we can ensure our study reflects the real diversity and range of experiences among young people.

### Step 4: Fieldwork planning



Some considerations at this stage are context specific in terms of country and/or organisational ethical requirements including obtaining parental consent as well as young people's assent/consent. Regardless of context all research participants should be provided with information about the study/the nature of their participation in advance of their participation. A recruitment plan needs to be put in place and the logistics of data collection need to be organised. Key ethical considerations include informed consent; voluntary participation (young people should not feel compelled to take part and should be free to withdraw from participating); anonymity (personal details should not be held/should be anonymised) and confidentiality (quantitative and qualitative records should be safely managed).



### Step 5: Data collection



The survey data is collected through online links provided (Google Forms/Microsoft Forms) and there is also the option of paper-based surveys for administration in youth organisations if online surveying is not possible. Paper-based surveys will need to be coded and inputted into an Excel electronic database.

The focus group data is collected through recording equipment (voice recording and note-taking if relevant) and transcribed verbatim.

### Step 6: Data analysis



The survey data is analysed through Excel (see project Excel guidance document) to observe patterns and relationships in the data e.g. in terms of gender/age/location. The focus group data is analysed through thematic content analysis (see guidance below) to extract key themes arising.

### Step 7: Research reporting



The analysis from this research feeds into organisational strategy to (1) develop further phases of impact measurement and (2) communicate and refine the methodological tools at the disposal of youth organisations for assessing how young people perceive and experience youth work.

*For further reference, check out [Appendix A](#)*



### Further Learning Resources



Bryman, Alan (2016) Part One 'The Research Process' in *Social Research Methods* 5th ed. London: Sage



[Alan Bryman on Research Methods](#)

# The SPICES Framework

In this section, we delve into the SPICES framework, a pivotal tool for assessing the impact of youth programmes on young people's developments. Just like different culinary spices transform the flavours of food, this framework encapsulates the transformative potential of youth programmes through six key areas of personal growth:

SPICES is a framework that stands for:



## Physical:

The nurturing of health, fitness, and overall well-being.



## Social:

How individuals interact with one another and contribute to their communities.



## Intellectual:

The stimulation and expansion of the mind.



## Spiritual:

The search for meaning, purpose, and connection with something greater.



## Character:

The shaping of one's values, integrity, and moral compass.



## Emotional:

The understanding and management of one's feelings.

Originally developed by the World Organization of the Scout Movement (WOSM), the SPICES model offers a holistic view of young people's growth. Recognising its robustness, we have embraced this framework to guide our impact study, creating a toolkit for data collection and analysis that resonates with these six development areas.

In recognising that each category of development encompasses a broad spectrum of elements (for instance, within physical development, we understand concepts like nutrition, physical activity, sleep patterns, participation in sports, and awareness of health practices), we have engaged in extensive consultations with young people and youth leaders from various cultures and regions on what they feel are the most important aspects of each category. From these dialogues, we distilled three key components within each SPICES category to focus our research and shape our questionnaires. As a result:

- **Social Development** emphasizes respect, positive community involvement, and confidence in leadership.
- **Physical Development** prioritizes physical activity, health knowledge, and health awareness.
- **Intellectual Development** centres on the curiosity to learn, information evaluation, and confidence in problem-solving.
- **Character Development** involves mentoring, consistency of character, and action-reflection.
- **Emotional Development** focuses on interpersonal awareness, and self-awareness, along with forming meaningful connections.
- **Spiritual Development** highlights the importance of reflection, finding life meaning, and respect for the natural world.

By identifying and measuring specific items under each area of personal development, we aim to provide a comprehensive snapshot of the transformative power of youth work from the perspectives of young people. Let's embark on this insightful exploration together, with SPICES providing the direction for our shared mission: to empower young lives comprehensively and meaningfully.



## Further Learning Resources



Tania St Croix – Rethinking Impact, evaluation and accountability in youth work



[YouthRex Framework for Evaluation of Youth Well Being](#)



## Sampling Strategy

In the realm of social research, particularly when assessing the impact of youth organisations, the accuracy and validity of findings largely depend on the sampling methods employed. For researchers, the choice of sampling strategy is fundamental. It determines who gets to voice their experiences, which opinions get documented, and whose narratives remain untold. Each strategy, be it random or non-random comes with its distinct advantages and pitfalls. These decisions are pivotal, as they directly influence the reliability and generalisability of the results.

This chapter provides a comprehensive yet user-friendly guide to the various sampling strategies available to researchers, with an emphasis on their application in the context of youth programmes.

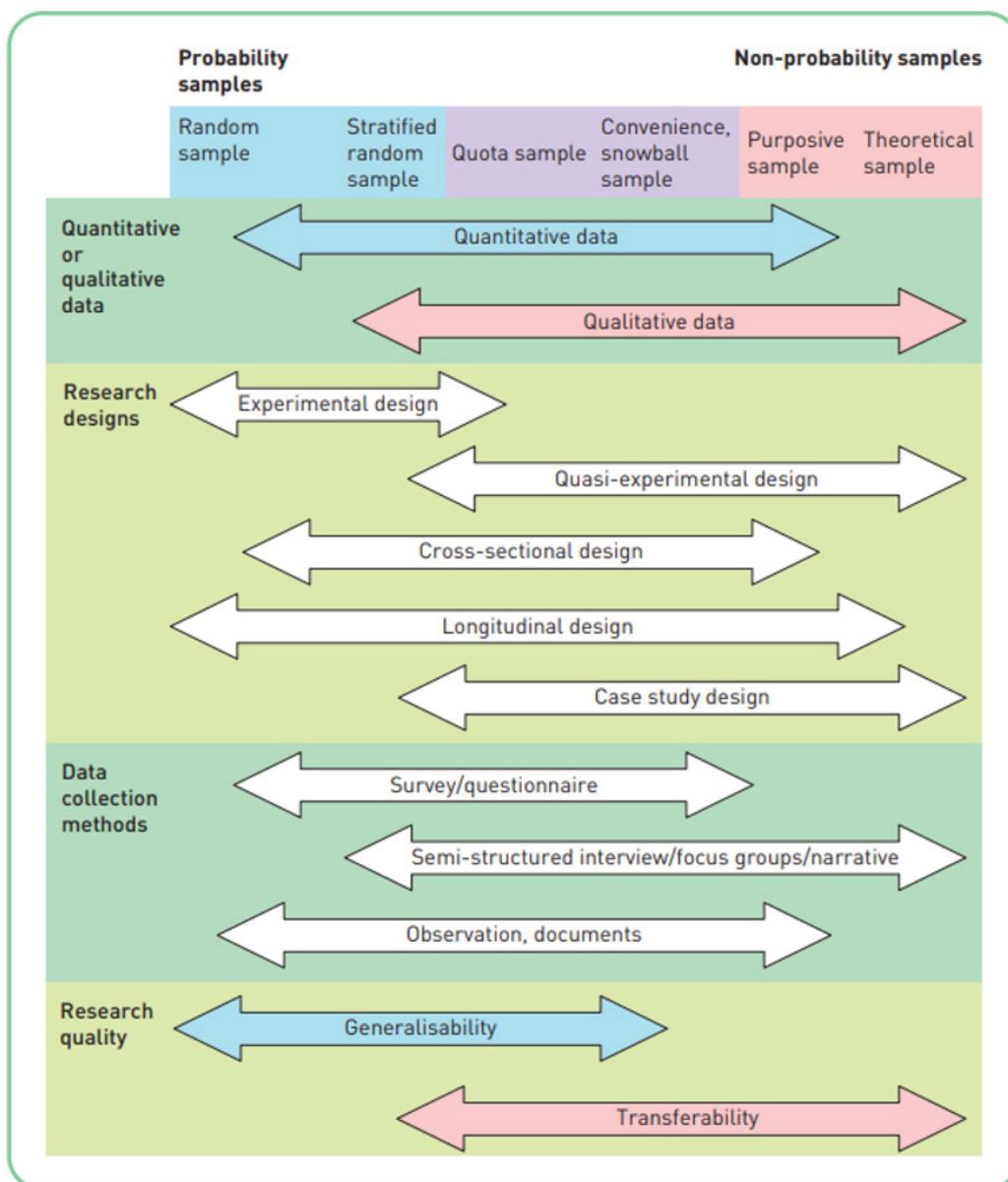
Recognising the unique challenges and opportunities within the sphere of youth initiatives, this guide has been curated to help organisations navigate the complex terrain of research sampling. Whether an organisation has vast resources at its disposal or is working with limited access to information and participants, the guide offers pragmatic solutions to ensure robust and systematic data collection. Before delving into the specifics of each strategy, it's vital to grasp the underlying principles and rationales that inform these choices. Only then can an organisation truly align its research objectives with the most fitting sampling method.

## You are invited to take the following steps to decide on the approach to survey sampling.

### STEP

# 1

Consider the general outline of the relationship between sampling and other aspects of research strategy (data type, research design, collection methods, quality) set out by Matthews & Ross (2010), and summarised as follows:



# 2

Consider the advantages and disadvantages in principle of choosing random (or probability) sampling as compared with non-random sampling, as follows (Matthews & Ross 2010: 172):

## Your research

### Thinking about your research topic and research questions: which sampling approach (or approaches) will you choose?

A probability sample may:

- enable you to generalise to your population;
- enable you to use statistical techniques to analyse your data.

BUT

- Do you have access to population lists – all the selected cases?
- Do you have the time, resources and skills to carry out the research in this way?

A non-probability sample may:

- enable you to make good use of your time, resources and skills;
- enable you to achieve a 'good enough' sample for the size and scale of your research;
- enable you to target the cases that are most likely to be of relevance to your research.

BUT

- Have you considered possible sources of bias in your sample?
- Can you justify the use of this sampling approach in your research report or dissertation and identify the limitations?

A purposive sample may:

- enable you to select cases on the basis of your research questions;
- enable you to gather in-depth data from a small number of cases;
- enable you to make good use of your time and resources.

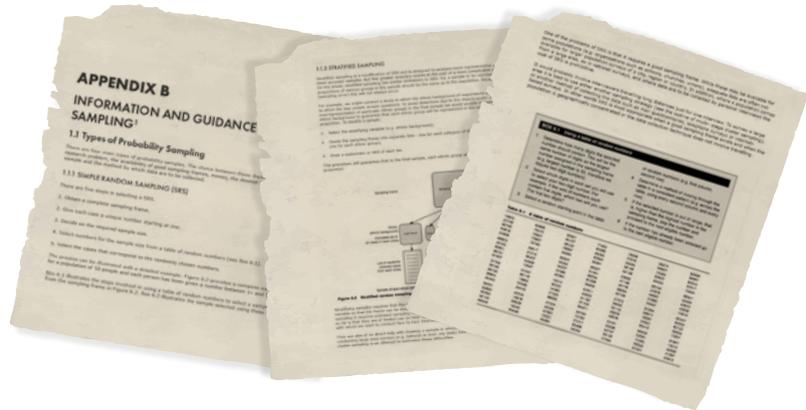
BUT

- Do you have a good understanding of the criteria you will use to select cases?
- Do you have access to cases that meet those criteria?
- Can you justify your sampling approach and the criteria used in your research report or dissertation?

## STEP

# 3

Partners are advised to familiarise themselves in general terms with the Information and Guidance on Sampling ([APPENDIX B](#), with acknowledgement to De Vaus 2014) before embarking on the decision-making process below, at which time they should consult the Information and Guidance again and follow the required steps for the selected approach in detail.



## STEP

# 4

Consider the matter of sample size ([see APPENDIX B](#)). Below is an extract from De Vaus (2002: 84) setting out some general principles to bear in mind..

### Box 6.5

#### General principles regarding sample size for which to aim

1. How varied is the sample likely to be in relation to the key variables in the study? The greater the variation the greater the sampling error. Therefore the greater the variance the larger the sample required to obtain the same level of precision of estimates.
2. How precise do estimates from the sample need to be? If very precise estimates are required a small confidence interval is required. This means a larger sample.
3. Do important decisions depend on the survey outcomes? If so increase sample size to ensure less sampling error.
4. What is the cost of increasing the sample size? Some methods of data collection involve relatively little cost for each additional sample member (e.g. internet, mail) while others (face-to-face) are expensive per unit.
5. What time is available? The larger the sample the longer it may take to collect—depending on method of collection and number of people collecting.
6. How are the data to be analysed? If regular subgroup analysis is anticipated and the subgroups are important for the study you must consider the sample size of the subgroups since the sampling error for the subgroups will be a function of the size of the subgroup.

*From: David de Vaus, Surveys in Social Research 5th ed. (Routledge 2002)*

STEP

# 5

Address the following questions regarding the specific circumstances in your organisation:

(A) Do you have access to a 'population sampling frame' in the form of a complete list of the members/participants in your organisation nationally from whom a sample can be drawn, with contact details and other relevant information?

If **YES**, proceed to answer question (B) below.

If **NO**, skip to question (C).

(B) Are there specific groups or categories of young people that you wish to ensure are included in the national sample but whose numbers are so small that you think you would need to take additional steps to include them?

If **YES**, consult the Information and Guidance on Sample Selection (Stratified Random Sampling).

If **NO**, consult the Information and Guidance on Sample Selection (Simple Random Sampling and Systematic Sampling).

(C) Do you have access to a sampling frame that consists of a list of regional associations or other sub-national entities within your organisation, within which a further list of affiliate groups/units/troops and their contact details is available?

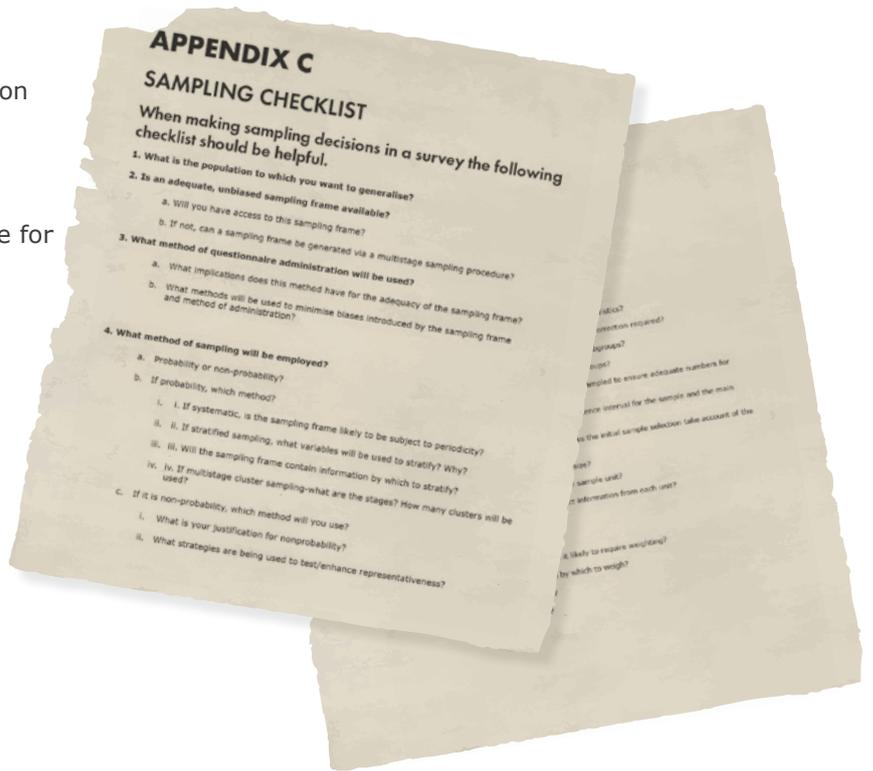
If **YES**, consult the Information and Guidance on Sample Selection (Multistage cluster sampling).

If **NO**, consult the Information and Guidance on Sampling Selection (Non-probability Sampling).

# STEP

# 6

Run through the Information and Guidance - Sampling Checklist ([Appendix C](#)) to make sure that there is comprehensiveness and consistency in the rationale for your sampling decisions.

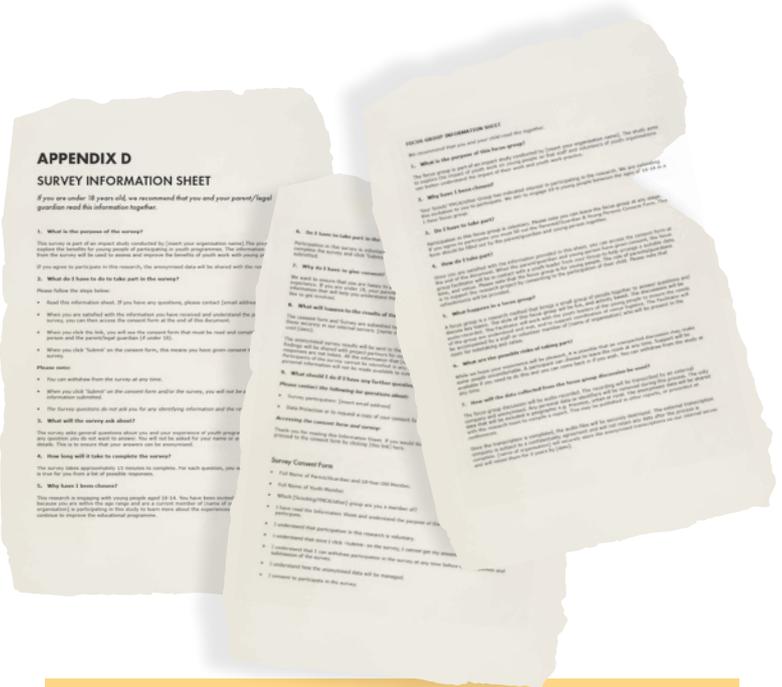


# STEP

# 7

## Ethical Protocols and Sample Recruitment

Prior to administration of the survey to the sample selected, ensure that guidance relating to data privacy/GDPR and ethical protocols has been adhered to; see the example of the Information and Consent form appended ([Appendix D](#)).



## Further Learning Resources



[De Vaus, David \(2014\) 'Finding a Sample' in Surveys in Social Research 6th ed. London: Routledge](#)



[John W. Creswell on Sampling and Integration in Mixed Methods Research](#)



## Data Collection Tools

The data collection process encompasses a blend of targeted surveys and interactive focus groups, each designed to effectively assess perceived impact within youth organisations based on the perspectives and experiences of young people. This includes:

(1) Administration of the survey instrument to young people on their perceptions of the benefits of youth work according to the SPICES framework.

(2) Facilitation of focus groups with young people to explore the meanings they associate with youth programmes, how they experience it, and how they articulate the benefits they experience particular to youth work.

The MIYO Survey with young people is an opportunity to collect the perspectives of a relatively large and diverse group of young people engaged in Scouting/youth work to (a) inform the development of methodological tools for measuring and tracking impact and outcomes in youth work settings (b) to enable youth organisations to periodically measure and compare the perceived impact of their programmes.

The survey itself is available electronically as a link through platforms such as MS Forms or Google Forms, as a user-friendly tool particularly accessible for young people through their handheld devices or computer. The electronic format also allows for participant anonymity and for the easy collation of data to MS Excel for analysis. In order to expand all opportunities for sample recruitment and increase response rates, offline/paper-based surveys can also be made available.

With any method of survey administration, whether online or in person, there are considerations relating to recruitment, the provision of information for informed consent and ensuring there is appropriate time and space available to young people to voluntarily complete the survey, without interference or influence. The value of the research in terms of collecting young people's views on what matters to them in youth work is an important aspect for communicating information on the survey and in encouraging participation.

Young people themselves are a key part of any recruitment strategy and, while sampling may be random, young people communicating the benefits of having their views heard can help develop awareness of the project and encourage greater uptake in terms of participation within their own networks.



### The Survey has two main sections:

**In Section One**, demographic and contextual information relating each young person (gender, age, place of residence, religious background) is gathered. The demographic questions were drawn on existing instruments such as the European Social Survey.

**In Section two**, survey questions are based on the items under each area of personal development, a.k.a SPICES framework, amended to take the form of first-person statements that young people can consider with respect to themselves. Each item is followed by a follow-up question relating to the youth work context. For example, in relation to physical development there is a statement which reads 'I try to live my life in a healthy way (nutrition, sleep, exercise)' and a follow up statement which reads 'Scouting encourages and supports me to live healthily'.

Please see [Appendix E](#) for the full questionnaire

### The MIYO Focus Group is an opportunity for young people to reflect upon aspects of their experiences with youth organisations.

The indicative questions are broad enough to allow for a useful discussion to emerge from the group. In addition, focus group facilitators might draw in elements of the SPICES framework as they see fit in order to enable young people to elaborate upon examples of benefits and outcomes. It is also encouraged to employ task-based exercises with young people, which are a regular part of youth work practice, in order to generate discussion within focus groups. Some examples of these are described on [page 24](#)



## Recruitment of Focus Groups



For the qualitative study, it is advised to organise a total of three focus groups. A general rule of thumb suggests that each group should consist of between 8-12 people. However, a more typical target number for each group is 6-8 participants. This size range is chosen because higher numbers in focus groups usually mean lower participation for each participant given the time constraints. It is important to ensure that sufficient numbers have been recruited for each group to allow for any last-minute withdrawals from the research.



In adherence to standard ethical guidelines, information sheets must be provided to all prospective participants. These sheets should detail the purpose of the focus group, the nature of participation, and the rights of participants concerning anonymity, confidentiality, and voluntary participation. Depending on the legal context or organisational procedures, written consent might be required from all participants. In cases involving participants under the age of 18 years, parental consent may also be necessary. It's important to comply with the specific ethical requirements of your jurisdiction.



Recruitment for focus groups should align with the wider MIYO objectives, incorporating considerations of diversity. This includes diversity in age, gender, ability, location (urban/rural), socio-economic status, and ethnicity, if relevant in the context of the study. It is advisable to group young people into age-appropriate categories. Therefore, having separate groups for younger participants (e.g., 14/15-year-olds) and older cohorts (16-18-year-olds) is recommended.



Feedback from pilot studies indicates that the gender mix can be a challenging dynamic among some youth focus groups. To address this, it is suggested to hold one female-only, one male-only, and one mixed-gender focus group. Facilitators and moderators should ensure that all members of the focus groups have an equal opportunity to contribute. They should pay particular attention to gender dynamics that might inhibit participation in mixed groups.



## Practicalities

At the beginning of organising a focus group, consider the practical aspects to ensure the space is conducive to both a comfortable discussion and the effective recording of it. The room setup is crucial: consider arranging chairs in a circle and include a table if required for activities. It's important to test the recording equipment and carefully place the recording device for optimal recording quality.

Refreshments should be provided either before or after the focus group, not during, to avoid noise disturbance. Typically, a focus group should run for 60-90 minutes. This duration allows sufficient time for introductions, a thorough discussion on the 'focus' of the group, and a wind-down period at the end. Consequently, the number of questions posed should be limited to avoid an overly long list, which might hinder in-depth discussion.

The type of questions asked in focus groups is significant to stimulate a productive discussion. Questions such as «Can you tell me about...» or «How was that experience for you...» are effective in generating conversation.

It's essential to ensure that the same key areas or key discussion questions are posed in each of the separate focus groups. This consistency allows for the collection of comparable data from different regions/participant countries. While discussions may naturally diverge in different directions with different focus groups, the role of the facilitator is critical in probing where needed and keeping the focus group on track.



## 1

## Warm Up/Introduction

The type of warm-up for the focus group should be tailored to its composition. This varies depending on whether it is an established group who are familiar with each other or a mixed group who are unfamiliar with one another. In the case of the latter, an ice breaker and a round of introductions would serve as an effective starting point.

The facilitator's welcome should include an explanation of why the participants are there, what the focus group will entail, and the ground rules for the session.



## Opening Questions

At the beginning, ask each young person to introduce themselves by saying hello, stating their name, age, where they are from, and how long they have been in Scouting/YMCA/youth work. These personal details will be changed to pseudonyms/anonymised in the final transcript, but for the transcriber, it is useful to capture all the voices at the beginning. This helps in differentiating and identifying dialogue attributable to particular speakers later on.

### Key opening questions could include:

- What does it mean to you to be a Scout/in the YMCA?
- What kinds of things do you most enjoy here?

### Possible Probes:

During the discussion, the facilitator can use probes to delve deeper into responses. These could include:

- Who else feels the same?
- Who has a different experience?

Such probing questions help in encouraging a broader and more diverse range of insights and experiences, enriching the data collected from the focus group.

## 2

## Main Body of Questioning

The purpose of the focus group is to explore young people's understanding of their journey and learning in Scouting/YMCA/youth work and how this experience is shaped by youth leaders. Key questions here should explore their understanding of what it means to be involved in the organisation, how (if at all) important are relationships with youth leaders deemed to be in the context of impact on young people's personal development.

### Types of discussion questions here could include:

- Can you describe what kind of learning happens here? – in other words what kinds of things do you know or what kinds of things can you do that you wouldn't if you didn't come here?
- What have you learned about yourself since becoming a Scout/since joining the YMCA?
- How do youth adults/leaders workers support that learning?



- How are these experiences different from other experiences you have with adults in school, sports clubs, other extracurricular activities?
- What is it that youth leaders do that make your experiences here enjoyable?
- Is there anything you would change if you could?

Focusing on the SPICES some options for questions/probes might be:

**Drawing out discussion of SPICES overall:**

“The people who lead Scouting/YMCA/youth organisations often talk about the different ways that they hope young people will develop through participating in this club/with this youth organisation, for example that they might develop ‘socially’, ‘spiritually’ or in terms of their ‘character’. Do these words make sense to you when you think of your own learning through Scouting/YMCA? Let’s look at each of the words in turn, what do you think they mean?”

**Follow up prompts if required on each of the SPICES, for example:**

- “In what ways, if any, does your experience of being a Scout/being in the YMCA/being in a youth organisation makes a difference to you  
**Socially...**  
**Physically...**  
**Intellectually...**  
 In terms of your **Character** (who you are)  
**Emotionally...**  
**Spiritually....**

**e.g. Social or Character:**

*“Some young people in Scouts/being in a youth organisation describe developing leadership skills and enjoying increasing responsibility in Scouting – what are your experiences of this?”*

**e.g. Spiritual**

*“What does spirituality mean to you?” and “In what ways, if any, has Scouting/YMCA/ youth work made a difference to how you think about spirituality and what it means in your life?”*

Option to include a projective technique/group exercise here to elicit discussion from the group on some of the key questions above/specifically in relation to the SPICES – see below:



## Examples of Projective Techniques:

- **Vignette/case study:**

A short hypothetical scenario regarding the journey of a young person through a Scouting programme/through YMCA which touches on key elements of SPICES.

Young people get a copy of the vignette to read and the facilitator reads through and poses a question or two at the end asking participants to reflect on the vignette and the learning outcomes and how this relates to their own experiences.

- **Creative task/personification/collage/picture:**

The group is tasked with for example devising an advertisement poster or a picture or creating a personification of a Scout - identifying different attributes of learning, different values, outcomes based on SPICES. As the group works together their ongoing discussion on what should be highlighted can be probed by the facilitator and at the end of the task the group should present and describe what they came up with and the reasons they chose to incorporate various elements/words/symbols and leave out others.

### 3

## Cool Down

This phase provides an opportunity to include young people in both programme and methodological evaluation.

- Ask the group for any advice they would give to young people joining Scouts/YMCA and to new youth leaders? And how would they advise those who develop and implement programmes for Scouts/YMCA – what could be done differently and for what reason?
- Now that the focus group has come to an end, ask participants to identify anything that has not yet been covered that would be important to include in such a focus group, any question that would be important to ask in such a discussion and that could also be posed to the next group of participants.





## Considerations

### The probing is very important!

Different types of probes like continuation probes («could you give me more detail..»), example probes («could you give me an example of this..»), and validation probes (summarising participant views to ensure the intended meaning has been conveyed) should be employed.

Managing group dynamics is also key. Facilitators should ensure everyone has the opportunity to participate, manage dominant talkers, and maintain group discussion, interrupting diplomatically where required. They should ask questions like, “who else has had this experience/ feels like this?”, “Does anyone have a different experience they would like to share?”

Avoid «Why» questions, as they imply that participants should have a logical explanation for their perspective and can make participants defensive. Instead, these questions should be broken down into more purposive inquiries like «What do you think are the reasons for..» or «What issues/factors are involved in your experience..»



### Further Learning Resources



De Vaus, David (2014) 'Collecting Survey Data' in Surveys in Social Research 6th ed. London: Routledge

Morgan, David (1997) Focus Groups as Qualitative Method. London: Sage



[David Morgan on Focus Groups](#)



# Data Analysis Tools

Data Analysis for this research takes two main forms: survey reports (quantitative data) and focus group analysis (qualitative data). Both approaches have their unique set of methods, benefits, and challenges, which we shall discuss in detail. The mixed methods approach provides a richer, more nuanced understanding of youth experiences.



## Quantitative Data Analysis

To facilitate a structured, streamlined and user-friendly approach to handling the survey results, an automated Excel template was developed by Maynooth University, in collaboration with Olas. This template enables youth workers to directly upload the collated survey data, from which they can gain insights into key aspects of the data for analysis relating to young people’s demographic background, their views on statements relating to personal development, and their perceptions of the impact of youth programmes on their development outcomes. The template allows for an exploration of the data from basic descriptive statistics to more advanced analysis looking at relationships and patterns across categories. With random samples we can also generalise beyond our sample as the data is representative of a wider population of young people in youth work.

The MIYO Survey Reporting and Analysis Tool provides functionality to look at individual variables and the responses to particular questions (univariate analysis) and to also compare data across different categories - for example, to look at survey responses according to gender, age, length of time engaged in youth work (bivariate and multivariate analysis). The separate user guide for the Excel tool will provide detailed instructions on using the tool for analysis and for filtering the data and creating pivot tables/pie charts to illuminate analysis for reporting.

A [brief guidance note](#) is also provided on reporting statistical analysis, to aid presentations from basic descriptive statistics to more advance inferential statistics and measures of association.



## Qualitative Data Analysis

The focus group data is analysed through qualitative data analysis. This involves an analysis of both the content of the discussion and the dynamic of the group discussion. Key to qualitative data analysis is uncovering meaning and with this focus group data the aim is to capture discussions and interactions among young people, in young people’s own words, providing a depth of understanding of the issues that numbers alone might not fully capture. To guide this process, a detailed manual on how to analyse and synthesise focus group discussions was created. This tool was designed to foster an understanding of the group dynamics, the shared experiences, and the individual perspectives that often emerge in focus group discussions.

 [Excel-based toolkit and guidebook](#)



## SOME PRACTICAL STEPS:

**Secure** the audio recordings and make a backup copy: Do you have observation notes from the focus groups? If so, it would be good to transcribe/digitise these and save with/link to your recording/focus group transcription.

**Name** the files 'correctly' in a way that you can find them again (e.g. YMCA 1 Dub 230923).

**Transcribe** – Decide if you will do it yourself or pay someone to do it. How will you choose if it is external? Some considerations include whether the transcription service has experience of transcribing focus group discussions for research and the ability to differentiate between different speakers. Remember that the quality of the transcription can really impact the quality of the analysis.

**Full or partial data set** - What do you want in a transcript - verbatim or 'highlights'? While verbatim transcription is a more time-consuming and laborious process, having the full transcript of the discussion aids a strong analysis of both the content and process of discussion. A verbatim transcript includes not just what is said but accounts for the silences, the interjections and the wider nuance of conversation which can provide valuable insights into group interaction. By selecting 'highlights' only to transcribe involves a subjective judgement on what is important and what is not at an early stage and may indeed risk losing what may have been some key data and limit the analysis.

**Anonymisation** – It is important at the transcription stage to remove identifiers in the data. This includes not only names but other identifying details including location, schools, youth group name etc. Pseudonyms are preferable to GIRL A, BOY C etc to maintain a more natural conversational flow to the transcript.

### Analysing text involves several tasks:

1. Discovering themes and subthemes;
2. Identifying what the key themes will be, as related to the overall study objectives;
3. Building hierarchies of themes or code books and
4. Linking themes into theoretical concepts/models.

## Another set of recommendations:

**Data reduction** – When it comes to qualitative research, this task involves reducing a mass of textual data into observable patterns. Ensure the original transcripts remain intact and data reduction is carried out on a copy;

**On a practical level**, you will work with either electronic files or hard copy files. Electronic files can be managed through qualitative analysis software (for example N\*Vivo), which can be helpful for large-scale projects. The fundamentals of analysis will need to be carried out in any case by identifying patterns/theming the data/colour coding/sorting and organising similar data together etc;

**What are you looking for in the data?** – Your original objectives and your key research questions will direct you in terms of what you are looking for in the data;

**Looking for patterns** – Are young people talking about the same kinds of things? Are they discussing their experiences in similar ways? Are they raising the same kinds of issues when asked about perceived benefits/outcomes?

**Making comparisons** – Are there comparisons to be made in one focus group and can we compare across focus groups e.g. the experiences of young females and young males? The experiences of youth organisations based on location?

**Contrasting one set of data with another** – for example, taking age as a dimension of analysis can we observe any major patterns in the data of older and younger participants?;

**Developing categories** – identifying key themes and dimensions of analysis of themes e.g. Theme 1 Social development – subtheme 1 experience of leadership – dimensions of analysis based on age, gender, socio-economic background;

**Looking for confirming evidence** – identify critical data relating to each theme, each subtheme and the dimensions of analysis observed as significant or relevant. This coding can involve colour coding/highlighting of transcripts;

**Looking for exceptions** – Is there any data that does not fit with the emerging patterns? Any young people with different experiences from emerging themes and is there anything in the transcript that can help to explain these differences?

**Analysis** - The researcher needs to move from artificial summary and description to meaning and understanding.

*(see Miles, Huberman and Saldana, 2019)*



**Thematic Analysis** is also a method for identifying, analysing and reporting patterns (themes) within data.

- Themes connote (imply the fundamental concepts we are trying to describe (Ryan and Bernard 2003);
- It minimally organises and describes your data in (rich) detail;
- However, frequently it goes further than this and interprets various aspects of the research topic (Braun & Clarke, 2006:79).

Phase	Description of the process
1. Familiarising yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking in the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

The above is an extract from Phases of Thematic Analysis (Braun & Clarke 2006:37)



## Coding

Codes are links between the raw data and the researcher's concepts enabling the researcher to **think about the data and with the data** (Seidel and Kelle, 1995). In the first instance this involves moving the data around to reassemble the information into themes and arguments.

Coding begins as a basic exercise in identifying key themes and moves to more sophisticated analysis as the themes/codes become developed, as more evidence emerges to qualify or challenge emerging themes. Initial codes may become subsumed into more general codes or become more refined. The goal of coding is to lead to **Abstraction**: What broader questions can your data answer and what insights can your analysis give?

### Coding Interview Transcripts:

- </> The coding of interview transcripts includes a number of stages. Read and reread the transcripts to get a complete sense of the discussion;
- </> On subsequent reading, take note of central ideas and concepts;
- </> Group similar information together, ensuring that a copy of the original transcript remains intact;
- </> Identify emotive or pertinent stories, a key example in the data;
- </> Recognise symbolism, how things are described by participants, and the language they use;
- </> Find themes – begin identifying key themes as you see them emerge in the data.



## Discovering Patterns:

Discovering patterns to themes involves looking at the data in terms of what is said, how often it is said, who is more typically saying it, what in the data might help explain it and the context within which it is discussed. Look particularly for:

- 🔗 **Frequencies** – how often is this issue/perspective cited?
- 🔗 **Magnitudes** – the level of the issue – is it minor or more deeply rooted/described/experienced.
- 🔗 **Structures** – how can we describe it – is the data showing different types, different relationships?
- 🔗 **Processes** – is there a process observable to give order among the elements of structure?
- 🔗 **Causes** – what factors are present and what can we observe in the data that might help to understand some of the causes?
- 🔗 **Consequences** – is there observable data around affect, around change?

(Miles, Huberman and Saldana, 2019)

## Further Learning Resources



De Vaus, David (2002) *Analysing survey data* in *Surveys in Social Research* 6th ed. London: Routledge

Krueger, Richard (1997) *Analyzing and Reporting Focus Group Results* in Morgan, D. and Krueger, R. *Focus Group Kit*. London: Sage

Gery, R. W., & Russel, B. H. (2003). *Techniques to Identify Themes*. *Field Methods*, 15(1), 85-109



[Leslie Curry on Qualitative Data Analysis](#)



[Happy Scribe](#)

[MAXQDA](#)

## Thematic Analysis Possibilities

The possibilities for analysis involve a more simple approach and a more complex approach.

### The more 'straightforward' approach:

- Describes the data
- Summarises participants' views
- 'Gives voice' to participants through key quotations from the data
- All of these still involve the researcher making interpretative, subjective judgements (Braun & Clarke 2006)

### The more 'complex' approach:

- Tells a story from the data with the data
- Locates data/participants within the wider social, cultural, historical, political, ideological contexts
- Is interpretative – moves beyond mere summary to sense making asking – 'what is going on here'
- Draws on theoretical/conceptual analysis – how can we understand this data based on what others have found previously? Based on key theories? Based on conceptual models? Can we develop these theories/challenge existing knowledge/shape new conceptual models and theoretical understanding through this research.



## Report Writing

Reporting on the results of your research can take various forms depending on the purpose and objective - for written reports this can take the form of, for example, a full formal academic report, a research briefing paper, a policy briefing document, a community-based pamphlet or a youth focused newsletter; or there are other media types which might be usefully employed to communicate and disseminate research findings, and which can especially engage young people in research dissemination activities, e.g. video blogs. Think about how your youth organisation typically communicates and how best to reach your target audience. Also ensure as far as possible that there are youth friendly versions of reports/findings available so young people can engage with the research.

**To help you to decide on the best approach to reporting your results or indeed whether you should use multiple forms you should ask the following questions:**

- **Why** am I writing it?
- **What** do I want to achieve?
- **Who** will read it?
- **Why** will they want to read it?
- **What** do they want to know?
- **What** do they know already?

As with any writing task it is important to bear these 3 Cs in mind;

# 3Cs

**C**ommunication – what’s the key message of your report? What are the main findings and what do these findings mean for policy, youth work practice/Scouting/your organisation, for young people’s lives, for further research?

**C**larity – are my points clear and adequately detailed? Have I provided sufficient evidence from the data? Have I explained particular terminology?

**C**onciseness – have I provided a summary version of results to accompany a longer report if needed? Have I ensured the important results are not lost in too much extraneous detail? Have I ensured I have not overly reduced word count to be concise and in doing so lost important detail?



## Further Learning Resources



Bryman, Alan (2016) Part 4 'Mixed Methods Research and Writing Up' in *Social Research Methods* 5th ed. London: Sage



[Creative reporting in evaluation with Chris Lysey](#)

[How to write for publication – Helen Kara](#)

[Infed – Writing up research](#)



## Ethics in Research

Ethics are key values which guide our research based on overarching principles of autonomy, beneficence (doing good); non-maleficence (not doing harm) and justice. Translating these broad principles for any research project entails questioning how you approach your research study and your responsibilities towards research participants. Such questions include:

- 1. What** are the ethical policies and guidelines relevant to the context within which I am undertaking my work – e.g. are there specific organisational guidelines or professional codes of ethics I adhere to?
- 2. Are** there any specific policies on research integrity/ data management I need to be aware of?
- 3. How** am I approaching prospective participants for study and how am I recruiting for my research?
- 4. How** inclusive and diverse are my approaches to sampling and recruitment?
- 5. Are** all young people involved in my projects provided with similar opportunities to take part in research and have their voices heard?
- 6. How** am I communicating information to my prospective participants about the research?
- 7. Do** my participants have the opportunity to provide informed consent to take part?
- 8. Am** I required by law and/ or by organisational ethical frameworks to obtain parental consent for young people taking part in my research?
- 9. Are** young people in my project aware that participation in research is voluntary and they should not feel compelled to take part?
- 10. Are** young people participating in research aware that they can choose to withdraw from research at any time?
- 11. How** safe and secure is the data that is collected? In what ways will I be managing this data, both electronically and paper based?
- 12. How** can I provide assurances of anonymity and confidentiality to participants? What are my procedures for anonymising data? Who has access to the data?

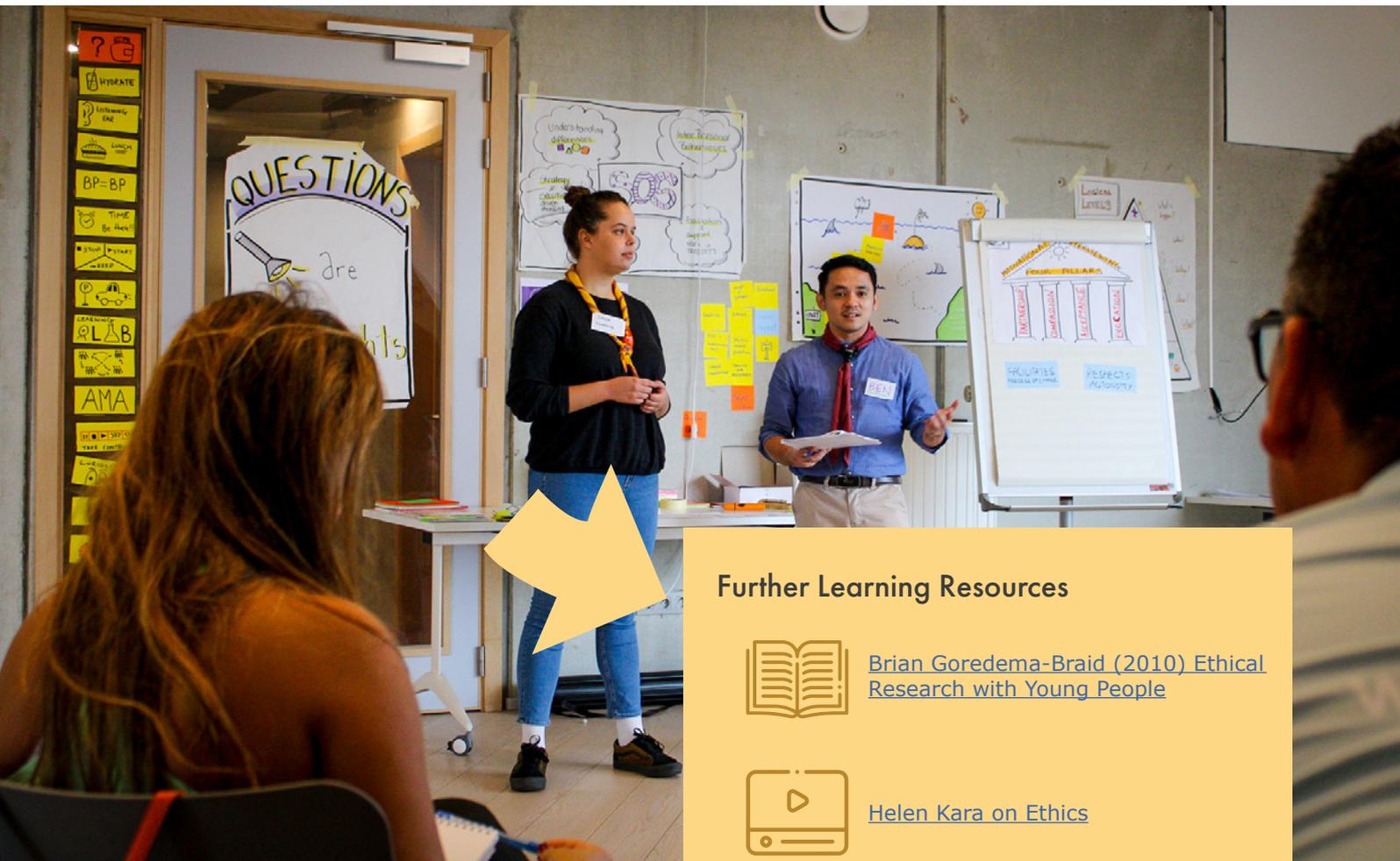


## Professional Codes of Ethics:

- [ISA \(International Sociological Association\)](#)
- [Bera \(British Educational Research Association\)](#)

## Key ethical responsibilities in research:

- Voluntary participation
- Informed consent
- Anonymity
- Confidentiality
- Non-exploitative /no harm accrued from taking part



### Further Learning Resources



[Brian Goredema-Braid \(2010\) Ethical Research with Young People](#)



[Helen Kara on Ethics](#)

# References

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Helen Kara on Coding Qualitative Data <https://youtu.be/OOmKZjz90NM?feature=shared>

Kitzinger, J. (1994) 'The methodology of focus groups: the importance of interaction between research participants', *Sociology of Health* 16 (1): 103-21.

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Matthews, B. & Ross, L. (2010) *Research Methods: A Practical Guide for the Social Sciences*. Harlow: Pearson.

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Puchta, C. and Potter, J. (2004) *Focus Groups Practice*. London: Sage

The Community ToolBox University of Kansas Available at <https://ctb.ku.edu/en>

University of Southern California Available at <https://libguides.usc.edu/writingguide/purpose>

Seidel, J., & Kelle, U. (1995). Different functions of coding in the analysis of textual data. In U. Kelle (Ed.), *Computer-aided qualitative data analysis: Theory, methods, and practice*. Thousand Oaks, CA: Sage.

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# Appendix



# APPENDIX A

## IMPLEMENTATION PLAN

### Check list of tasks to include in the implementation plan

#### 1. How will you select your participants?

##### Sampling

- a. Determine number of respondents and identify them for the survey
- b. Determine number of respondents and identify them for the focus group.
- c. Determine whether you are required to gain consent from your participants or their parents.
- d. How many focus groups will you run? (we suggest around 2-3)

#### 2. Focus Groups:

- a. You will need to identify moderators
- b. Briefing or training your moderators
- c. How will you record the focus groups
- d. Your moderators will then need to plan for and conduct the focus groups
- e. The recordings of your Focus groups will need to be transcribed
- f. Lastly an analysis of the information gathered will need to be organised

#### 3. Survey:

- a. The link to the survey tool will need to be organised electronically (through MS Forms preferably)
- b. An email list of survey participants will need to be created
- c. Surveys will need to be distributed to your participants
- d. You may need to encourage or remind your participants to answer the survey
- e. The information collected from the surveys will need to be cleaned and entered into the Excel template
- f. Lastly an analysis of the information gathered will need to be organised

## 4. Report writing

- a. Insights from the analysis of both the Focus Groups and Survey will need to be brought together and written into a report. (do you have research experts that could help you draft the report?)
- b. Insights and the draft report should be reviewed by a research expert to ensure your conclusions meet proper research standards.
- c. An implementation plan template should be devised and developed.

You could use a simple table like the one below to record your implementation plan.

Action/ Task	Responsible	Deadline	Support required

# APPENDIX B

## INFORMATION AND GUIDANCE ON SAMPLING<sup>1</sup>

### 1.1 Types of Probability Sampling

There are four main types of probability samples. The choice between these depends on the nature of the research problem, the availability of good sampling frames, money, the desired level of accuracy in the sample and the method by which data are to be collected.

#### 1.1.1 SIMPLE RANDOM SAMPLING (SRS)

There are five steps in selecting a SRS.

1. Obtain a complete sampling frame.
2. Give each case a unique number starting at one.
3. Decide on the required sample size.
4. Select numbers for the sample size from a table of random numbers (see Box 6.1).
5. Select the cases that correspond to the randomly chosen numbers.

The process can be illustrated with a detailed example. Figure 6.2 provides a complete sampling frame for a population of 50 people and each person has been given a number between 1» and 50.

Box 6.1 illustrates the steps involved in using a table of random numbers to select a sample of ten cases from the sampling frame in Figure 6.2. Box 6.2 illustrates the sample selected using these methods.

One of the problems of SRS is that it requires a good sampling frame. While these may be available for some populations (e.g. organisations such as schools, churches, unions), adequate lists are often not available for larger population surveys of a city, region or country. In addition, where a population comes from a large area, as in national surveys, and where data are to be collected by personal interviews the cost of SRS is prohibitive.

It would probably involve interviewers travelling long distances just for one interview. To survey a large area it is best to use either another sampling strategy (see the outline of multi-stage cluster sampling), or another method of collecting the data such as mail questionnaires, telephone surveys or internet-based surveys. In other words SRS is most appropriate when a good sampling frame exists and when the population is geographically concentrated or the data collection technique does not involve travelling.

---

<sup>1</sup> From: David de Vaus, *Surveys in Social Research* (Routledge 2014)

Number	Name	Number	Name	Number	Name
01	Adams, H.	18	Iulianetti, G.	35	Quinn, J.
02	Anderson, J.	19	Ivono, V.	36	Reddan, R.
03	Baker, E.	<u>20</u>	<u>Jabornik, T.</u>	<u>37</u>	<u>Risteski, B.</u>
04	Bradsley, W.	<u>21</u>	<u>Jacobs, B.</u>	<u>38</u>	<u>Sawers, R.</u>
05	Bradley, P.	22	Kennedy, G.	39	Saunders, M.
06	Carra, A.	23	Kassem, S.	40	Tarrant, A.
07	Cidoni, G.	24	Ladd, F.	41	Thomas, G.
08	Daperis, D.	<u>25</u>	<u>Lamb, A.</u>	42	Uttay, E.
09	Devlin, B.	26	Mand, R.	43	Usher, V.
10	Eastside, R.	<u>27</u>	<u>McIlraith, W.</u>	44	Varley, E.
11	Einhorn, B.	28	Natoli, P.	45	Van Rooy, P.
12	Falconer, T.	29	Newman, L.	<u>46</u>	<u>Walters, J.</u>
13	Felton, B.	30	Ooi, W.	47	West, W.
14	Garratt, S.	31	Oppenheim, F.	48	Yates, R.
15	Gelder, H.	<u>32</u>	<u>Peters, P.</u>	49	Wyatt, R.
16	Hamilton, I.	33	Palmer, T.	<u>50</u>	<u>Zappulla, T.</u>
17	Hartnell, W.	<u>34</u>	<u>Quick, B.</u>		

**Figure 6.2** Selecting a simple random sample from a sampling frame

**BOX 6.1** *Using a table of random numbers*

- Determine how many digits the selected number should contain. This will be the same number of digits as the largest number assigned in the sampling frame (e.g. largest number is 50, therefore we require two-digit numbers).
- Select which digits in each set you will use to select your two-digit number. For example, if the sets of numbers each contain five digits, which two will you use? The first two digits?
- Select a random starting point in the table of random numbers (e.g. first column, second row).
- Determine a method of moving through the table in a consistent pattern (e.g. across the table, using every second column and every row).
- If the selected number is out of range, that is, higher than the highest number in the sampling frame, skip the number and proceed to the next eligible number.
- If the number has already been selected go to the next eligible number.

**Table 6.1** A table of random numbers

74605	60866	92941	77422	78308	08274	62099
20749	78470	94157	83266	37570	64827	94067
88790	79927	48135	46293	05045	70393	80915
64819	73967	78907	50940	98146	80637	50917
55938	78790	04999	32561	92128	83403	79930
66853	39017	82843	26227	25992	69154	38341
46795	21210	43252	51451	47196	27978	49499
95601	36457	34237	98554	46178	44991	43672
98721	44506	37586	67256	88094	51860	43008
61307	12947	43383	34450	62108	05047	15614
37788	01097	15010	97811	27372	81994	60457
36186	66118	90122	45603	94045	66611	69202
96730	13663	14383	51162	50110	16597	62122
98831	31066	21529	01102	28209	07621	56004
35450	24410	88935	84471	46076	60416	10007
92031	42334	27224	09790	59181	66958	91967
02863	16678	45335	72783	50096	52581	15214
80360	89628	47863	21217	62797	11285	42938
58193	16045	72021	93498	99120	36542	41087
66048	95648	94960	58294	07984	87321	23919

### BOX 6.2 Selecting a SRS of ten cases

- Using the sampling frame in Figure 6.2, the table of random numbers in Table 6.1 and the steps in Box 6.1 results in the following selections.
- We require ten two-digit numbers.
- We will use the first two digits in each set.
- We will begin in the first column of row 2. This gives the number 20749. We will use the first two digits which results in the number 20. We would select case 20 (Jabornik) from the sampling frame.
- We will move across the table selecting every second column and every row. This

results in the selection of the following sets of numbers of which only some (those in bold) result in an in range number (between 1 and 50).

<u>20</u> 749	94157	<u>37</u> 570	94067
79927	<u>46</u> 293	70393	
64819	78907	98146	<u>50</u> 917
78790	<u>32</u> 561	83403	
66853	82843	<u>25</u> 992	<u>38</u> 341
<u>21</u> 210	51451	<u>27</u> 978	
95601	<u>34</u> 237		

<b>Step 1:</b> Determine population size	01	21	41	61	81
100	02	22	42	62	82
	<u>03</u>	<u>23</u>	<u>43</u>	<u>63</u>	<u>83</u>
	04	24	44	64	84
<b>Step 2:</b> Determine sample size required	05	25	45	65	85
20	06	26	46	66	86
	07	27	47	67	87
	<u>08</u>	<u>28</u>	<u>48</u>	<u>68</u>	<u>88</u>
<b>Step 3:</b> Calculate sampling fraction (population ÷ sample)	09	29	49	69	89
= 100 ÷ 20	10	30	50	70	90
= 5	11	31	51	71	91
	12	32	52	72	92
	<u>13</u>	<u>33</u>	<u>53</u>	<u>73</u>	<u>93</u>
<b>Step 4:</b> Select random starting point within first 5 cases	14	34	54	74	94
e.g. 03	15	35	55	75	95
	16	36	56	76	96
	17	37	57	77	97
	<u>18</u>	<u>38</u>	<u>58</u>	<u>78</u>	<u>98</u>
<b>Step 5:</b> Select every 5th case	19	39	59	79	99
= sample of 20	20	40	60	80	100

Adapted from <http://trochim.human.cornell.edu/kb/sampprob.htm>

**Figure 6.3 Drawing a systematic sample**

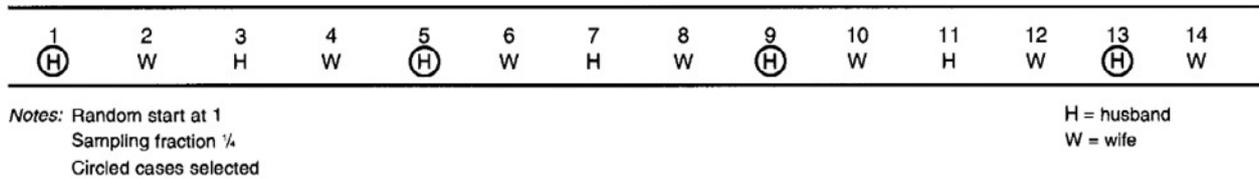
### 1.1.2 SYSTEMATIC SAMPLING

Systematic sampling is similar to SRS and has the same limitations except that it is simpler. To obtain a systematic sample follow these steps:

1. Obtain a sampling frame.
2. Determine the population size (e.g. 100).
3. Determine the sample size required (e.g. 20).
4. Calculate a sampling fraction by dividing the population size by the required sample size (100 ÷ 20 = 5).
5. Select a starting point by randomly selecting a number between 1 and 5 (or whatever the sampling fraction is; e.g. select number 3).
6. The selected number is the starting point so case 3 is selected.

- Use the sampling fraction to select every  $n$ th case. With a sampling fraction of 5 select every 5th case and obtain a sample of 20 cases.

Apart from the problems systematic samples share with SRS, they can encounter an additional one: periodicity of sampling frames. That is, a certain type of person may recur at regular intervals within the sampling frame. If the sampling fraction is such that it matches this interval, the sample will include only certain types of people and systematically exclude others. We might have a list of married couples arranged so that every husband's name is followed by his wife's name. If a sampling fraction of four was used (or any even number in this case) the



**Figure 6.4 The effect of periodicity**

sample would be all of the same sex (see Figure 6.4). If there is periodicity in the sampling frame then either mix up the cases or use SRS.

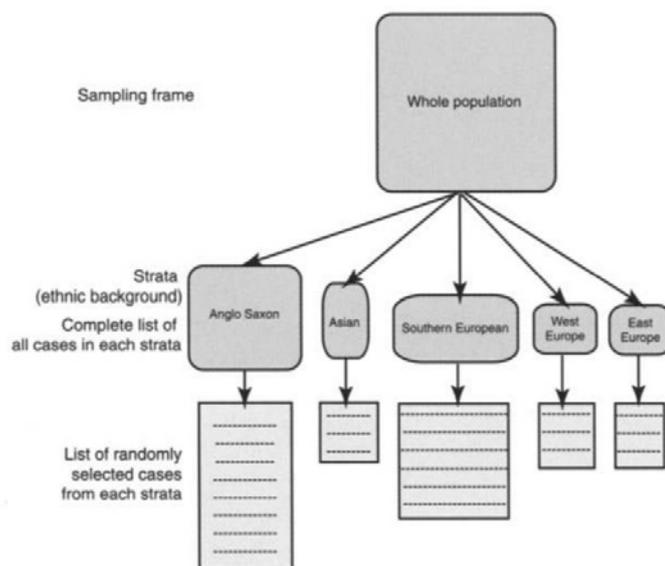
### 1.1.3 STRATIFIED SAMPLING

Stratified sampling is a modification of SRS and is designed to produce more representative and thus more accurate samples. But this greater accuracy comes at the cost of a more complicated procedure. On the whole, stratified sampling has similar limitations to SRS. For a sample to be representative the proportions of various groups in the sample should be the same as in the population. Because of chance (sampling error) this will not always occur.

For example, we might conduct a study in which the ethnic background of respondents is expected to affect the way people answer questions. To avoid distortions due to the chance under- or overrepresentation of particular ethnic groups in the final sample we would stratify the sample by ethnic background to guarantee that each ethnic group will be represented in the sample in its correct proportion. To stratify a sample:

- Select the stratifying variable (e.g. ethnic background);
- Divide the sampling frame into separate lists - one for each category of the stratifying variable (i.e. one for each ethnic group);
- Draw a systematic or SRS of each list.

This procedure will guarantee that in the final sample, each ethnic group will be represented in its correct proportion.



Sample of each ethnic group is proportionate to size of group in whole populations

**Figure 6.5 Stratified random sampling**

Stratifying samples requires that the sampling frame contains information regarding the stratifying variable so that the frame can be divided up. Since stratified sampling also involves SRS or systematic sampling it requires unbiased sampling frames. The problem with all the sampling techniques considered so far is that they are of limited use on their own when sampling a geographically dispersed population with whom we want to conduct face-to-face interviews.

They are also of no direct help with drawing a sample in which no sampling frame is available. When conducting large area surveys (e.g. national or even city wide) both these problems exist. Multistage cluster sampling is an attempt to overcome these difficulties.

### 1.1.4 MULTISTAGE CLUSTER SAMPLING

This technique of obtaining a final sample involves drawing several different samples (hence its name) and does so in such a way that the cost of final interviewing is minimised. The basic procedure of sampling the population of a city for which there was no sampling frame of residents involves the following steps (see Figure 6.6).

1. Divide the city into areas (e.g. electorates, census districts). These areas are called clusters.
2. Select a SRS of these clusters.
3. Obtain a list of smaller areas (e.g. blocks) within the selected clusters.
4. Select a SRS of smaller areas (e.g. blocks) within each of the clusters selected at stage 2.
5. For each selected block obtain a list of addresses of households (enumeration).
6. Select a SRS of addresses within the selected blocks.
7. At each selected address select an individual to participate in the sample.

How are individuals selected from the chosen households? One method designed to avoid bias is to use a procedure developed by Kish (1949). Once households have been selected they are numbered systematically from 1 to 12. When interviewers arrive at a particular house they make a list of all people in the household who fit the requirements of the sample. The list is arranged so that all males are listed first from eldest to youngest, then females in the same way. Then using the grid (see Table 6.2) they select a particular person based on the number assigned to that household (between 1 and 12) and the number of eligible people in the household. Thus in a household assigned number 9 in which there were four eligible people the fourth listed person would be interviewed. A less cumbersome method is to select the household member whose birthday is closest to the interview date.

An important issue in multistage sampling is how many clusters (whether they be districts, blocks or households) to sample at each stage. The general principle is to maximise the number of initial clusters chosen and consequently select only relatively few individuals or units within each cluster. The reason for this is that it is important that different districts are included initially. If only one or two were selected (e.g. two upper-middle-class suburbs) we could end up with a very unrepresentative sample. By maximising the chance for variety initially, we increase the chance of maintaining representativeness at later stages. The problem is that as the number of clusters chosen initially increases so do the travelling costs later on. In the end a compromise between cost and sampling error has to be made.

One way of minimising the effect on representativeness of reducing clusters is to use stratification techniques. Thus, when selecting districts, put them into various strata (e.g. status, prices, density, age composition etc) and then randomly select districts within the strata. The same principle can apply when selecting blocks.

Another problem with sampling areas is that the number of households in various districts or blocks will differ. This could easily lead to missing blocks in which there is a large number of a particular type of household. For example, we might survey a city and miss out on all the blocks with high-rise government housing. This would clearly lead to an unrepresentative sample. This danger is reduced by maximising the number of districts sampled and by using stratifying procedures.

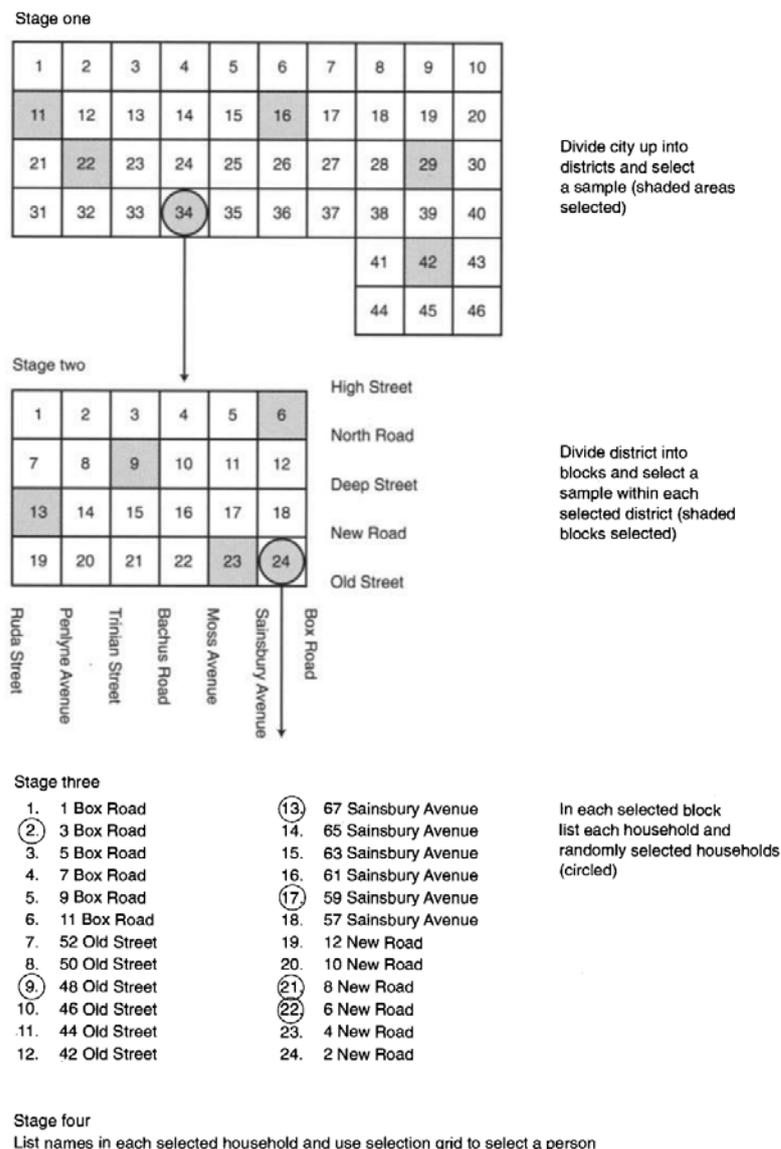
Another approach is to use a modified version of multi stage cluster sampling known as probability proportional to size (PPS) sampling (Kish, 1965: 217-45). It is unnecessary to describe this in detail here but it operates so that the probability of a block being chosen depends on the number of households it contains. Thus a block with four times as many households as another has a four times greater chance of being selected. To avoid biasing the final sample the same number of people are chosen from each block regardless of its size. Thus the block with 100 households has four times the chance of being chosen than a block with only 25 households. But since, say, only five households are chosen in each block, regardless of size, the higher probability of a large block being chosen is compensated for by the lower probability of a particular household on that block being chosen. The point of PPS sampling is simply to ensure proper representation of densely populated blocks.

**Table 6.2 Grid for selecting individuals in multistage sampling**

Assigned number of address	Total number of eligible persons					
	1	2	3	4	5	6 or more
1 or 2	1	1	2	2	3	3
3	1	2	3	3	3	5
4 or 5	1	2	3	4	5	6
6	1	1	1	1	2	2
7 or 8	1	1	1	1	1	1
9	1	2	3	4	5	5
10 or 11	1	2	2	3	4	4
12	1	1	1	2	2	2

Source: Hoinville et al., 1977: 82

The principles of multistage cluster sampling can be applied to other contexts where there are no easily available sampling frames. For example, a survey of members of a national organisation such as a church or union might start by sampling areas of the country, then districts within each area. Within each district a list of branches (comparable to blocks) could be compiled and sampled. For each selected branch, membership lists could be obtained and a sample drawn from these. [NB above to members of the MIYO consortium without national membership or participant sampling frames].



**Figure 6.6 Steps in multistage cluster sampling**

## 1.2 NON-PROBABILITY SAMPLING

There are often situations where probability sampling techniques are either impractical or unnecessary.

In such situations the much cheaper non-probability techniques are used. These techniques are appropriate when sampling frames are unavailable or the population is so widely dispersed that cluster sampling would be too inefficient. For example, it would be very difficult to obtain a random sample of homosexuals or marijuana users. Any attempt to do so would either be so expensive that we would end up with a sample too small for meaningful analysis or the rate of dishonesty and refusal would produce such a bias that the sample would not be representative despite probability sampling methods.

In the preliminary stages of research, such as testing questionnaires, non-random samples are satisfactory. On occasions researchers are not concerned with generalising from a sample to the population and in such cases representativeness of the sample is less important. Instead they may be interested in developing scales (see Chapter 11) or in a tentative, hypothesis-generating and exploratory look at data patterns. Some research is not all that interested in working out what proportion of the population gives a particular response but rather in obtaining an idea of the range of responses or ideas that people have. In such cases we would simply try to get a wide variety of people in the sample without being too concerned about whether each type was represented in its correct proportion.

Purposive sampling is a form of non-probability sampling where cases are judged as typical of some category of cases of interest to the researcher. They are not selected randomly. Thus a study of leaders of the conservation movement might, in the absence of a clearly defined sampling frame or population, select some typical leaders from a number of typical conservation groups. While not ensuring representativeness, such a method of selection can provide useful information.

Quota sampling is another common non-probability technique aimed at producing representative samples without a random selection of cases. Interviewers are required to find cases with particular characteristics: they are given quotas of particular types of people to fill. The quotas are organised so that in terms of the quota characteristics the final sample will be representative. To develop quotas we decide on which characteristic we want to ensure the final sample is representative of (e.g. age), find out the distribution of this variable in the population and set quotas accordingly.

Thus if 20 percent of the population is between 20 and 30 years old and the sample is to be 1000, then 200 of the sample (20 percent) will be in this age group. If twenty people were doing the interviewing and each had identical quotas of 50, each interviewer would find ten people in this age group (20 percent of 50). Quite complex quotas can be developed so that several characteristics (e.g. gender, age, marital status) are dealt with simultaneously. Thus, an interviewer would be assigned a quota for unmarried females between 20 and 30 years, married females between 20 and 30 years and for each other combination of the three quota variables (see Moser and Kalton, 1971: 129).

Quota techniques are non-random because interviewers can select any cases that fit certain criteria. This can lead to bias as interviewers will tend to select those who are easiest to interview and with whom they feel most comfortable (e.g. friends). Another difficulty with quota sampling is that accurate population proportions may be unavailable. Finally, since random sampling is not used, it is impossible to ascertain the accuracy of any estimates from a quota sample.

Availability samples are also common but must be used with caution and only for specific purposes. These samples are the least likely of any technique to produce representative samples. Using this approach anyone who will respond will do. Surveys where newspapers ask readers to complete and return questionnaires printed in the paper, pop-up web surveys, or TV station 'phone-in' polls are examples of such samples. While these techniques can produce quite large samples cheaply their size does not compensate for their unrepresentativeness. This type of sample can be useful for pilot testing questionnaires or exploratory research but must not be used to make any claim to representing anything but the sample itself.

## 1.3 SAMPLE SIZE

The required sample size depends on two key factors:

1. the degree of accuracy we require for the sample;
2. the extent to which there is variation in the population in regard to the key characteristics of the study.

We need to decide how much error we are prepared to tolerate and how certain we want to be about our generalisations from the sample. Two statistical concepts, sampling error and confidence intervals, help us specify the degree of accuracy we achieve and the concept of confidence level specifies the level of confidence we can have in our generalisations. These concepts are explained in Chapter 13 [of De Vaus 2014] and it may be helpful to read this section now.

In Table 6.3 the sample sizes required to obtain samples of varying degrees of accuracy are listed. The figures in this table are calculated so that we can be 95 percent confident that the results in the population will be the same as in the sample plus or minus the sampling error. Thus, if in a sample of 2500 cases we found that 53 per cent intended to vote for the Labor Party, we can be 95 percent confident that 53 percent plus or minus 2 percent (i.e. between 51 and 55 per cent) of the population intends to vote Labor.

**Table 6.3 Sample sizes required for various sampling errors at 95% confidence level (simple random sampling)**

Sampling error <sup>a</sup> %	Sample size <sup>b</sup>	Sampling error	Sample Size
1.0	10 000	5.5	330
1.5	4 500	6.0	277
2.0	2 500	6.5	237
2.5	1 600	7.0	204
3.0	1 100	7.5	178
3.5	816	8.0	156
4.0	625	8.5	138
4.5	494	9.0	123
5.0	400	9.5	110
		10	100

*Notes:* <sup>a</sup> This is in fact two standard errors.

<sup>b</sup> This assumes a 50/50 split on the variable. These sample sizes would be smaller for more homogeneous samples (see Table 6.4).

There are several things to note about the relationship between sample size and accuracy. First, when dealing with small samples a small increase in sample size can lead to a substantial increase in accuracy. Thus increasing the sample from 100 to 156 reduces sampling error from 10 percent to 8 percent. With larger samples increasing the sample size does not have the same payoff. To reduce sampling error from 2.5 per cent to 2 per cent we need to increase the sample by 900 cases. The rule is that to halve the sampling error we have to quadruple the sample size. Beyond a certain point the cost of increasing the sample size is not worth it in terms of the extra precision. Many survey companies limit their samples to 2000 since beyond this point the extra cost has insufficient payoff in terms of accuracy.

Second, the size of the population from which we draw the sample is largely irrelevant for the accuracy of the sample. It is the absolute size of the sample that is important. The only exception to this is when the sample size represents a sizable proportion of the population (e.g. 10 per cent). In such cases a slightly smaller sample is equally accurate. The calculation of sample size in this situation requires the application of a finite population correction (see Moser and Kalton, 1971: 147 for the formula to make the adjustments).

The third point is that the figures in Table 6.3 assume a heterogeneous population. For a population in which most people will answer a question in the same way, a smaller sample will do. Thus for a study on voting, a population where 50 per cent intend voting Labor and 50 per cent for other parties (a 50/50 split) would require a larger sample than one where 80 per cent intended to vote Labor. Table 6.4 lists the required sample sizes depending on the degree of accuracy required and the estimated population variation for the key study variables.

In the end the sample size must take into account the degree of diversity in the population on key variables, the level of sampling error that is tolerable and the reliability required of the sample. Decisions about one factor have implications for other factors as Figure 6. 8 illustrates.

There are difficulties in determining sample size. Apart from requiring that we specify the degree of precision needed, we must also have a rough idea how people are going to answer the question; that is, we must have an idea of the variation (split). The problems with this are twofold—we often do not have this information, and surveys often have more than one purpose. On one key variable of interest there may be an anticipated split of 80/20 but on another it may be closer to 50/50. For such multipurpose surveys it seems best to play safe and determine size on the basis of the important variables on which there is likely to be greatest diversity within the sample.

Another matter in working out the sample size occurs when we need to break the sample into subgroups (e.g. males and females). How large do these subgroups need to be? The strict answer is that the sample size and variation within each group should determine the sample size required for each group. If there are 500 males then the sampling error for the males will be a function of this sample size. Even though the whole sample has 1000 cases (and thus a confidence interval of 6.1 percent at the 95 percent confidence level in a population of ten million) the confidence interval for males would be 8.8 per cent. The same would apply to females. This means that your estimates for males and females separately would be less precise than for the sample overall.

This might be acceptable but you need to be conscious of this—especially for the main ways in which you divide your sample. If you are breaking the sample up into a number of relatively small groups the sampling error (and thus the confidence interval) for those groups will be relatively high.

This brings us to a final point. Despite all the figures in the tables we should think ahead to how we intend to analyse the results. In practice a key determinant of sample size is the need to look separately at different subgroups. Make sure that the sample is sufficiently large so that when it is broken down into separate subgroups (e.g. age, class, sex) there will be sufficient numbers in each. As a rule of thumb try to ensure that the smallest subgroup has at least 50 to 100 cases (Hoinville et al., 1977: 61). Of course desired accuracy is not the only factor in working out the sample size: cost, time and access to respondents are also key factors. The final sample size will be a compromise between cost, accuracy and ensuring sufficient numbers for meaningful subgroup analysis.

# APPENDIX C

## SAMPLING CHECKLIST<sup>2</sup>

When making sampling decisions in a survey the following checklist should be helpful.

- 1. What is the population to which you want to generalise?**
- 2. Is an adequate, unbiased sampling frame available?**
  - a. Will you have access to this sampling frame?
  - b. If not, can a sampling frame be generated via a multistage sampling procedure?
- 3. What method of questionnaire administration will be used?**
  - a. What implications does this method have for the adequacy of the sampling frame?
  - b. What methods will be used to minimise biases introduced by the sampling frame and method of administration?
- 4. What method of sampling will be employed?**
  - a. Probability or non-probability?
  - b. If probability, which method?
    - i. i. If systematic, is the sampling frame likely to be subject to periodicity?
    - ii. ii. If stratified sampling, what variables will be used to stratify? Why?
    - iii. iii. Will the sampling frame contain information by which to stratify?
    - iv. iv. If multistage cluster sampling-what are the stages? How many clusters will be used?
  - c. If it is non-probability, which method will you use?
    - i. What is your justification for nonprobability?
    - ii. What strategies are being used to test/enhance representativeness?

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<sup>2</sup> David de Vaus, *Surveys in Social Research* (Routledge 2014)

## **5. How large a sample is required?**

- a. What is the variability of the sample on key characteristics?
- b. What is the population size? Is a finite population correction required?
- c. Will the analysis require a separate analysis of subgroups?
  - i. If so, what is the likely size of the subgroups?
  - ii. Will some subgroups need to be oversampled to ensure adequate numbers for meaningful analysis?
- d. What is the estimated sampling error/confidence interval for the sample and the main subgroups?
- e. What is the estimated non-response? Does the initial sample selection take account of the level of non-response?
- f. How do practicalities affect the sample size?
  - i. What is the estimated cost per sample unit?
  - ii. How long will it take to collect information from each unit?

## **6. Will the sample require weighting?**

- a. If so, on what characteristics is it likely to require weighting?
- b. Will you have the information by which to weigh?
  - ii. Population parameter?
  - ii. Sample information?

# APPENDIX D

## SURVEY INFORMATION SHEET

*If you are under 18 years old, we recommend that you and your parent/legal guardian read this information together.*

### 1. What is the purpose of the survey?

This survey is part of an impact study conducted by [insert your organisation name]. The project aims to explore the benefits for young people of participating in youth programmes. The information gathered from the survey will be used to assess and improve the benefits of youth work with young people.

If you agree to participate in this research, the anonymised data will be shared with the research team.

### 2. What do I have to do to take part in the survey?

Please follow the steps below:

- Read this information sheet. If you have any questions, please contact [email address]
- When you are satisfied with the information you have received and understand the purpose of the survey, you can then access the consent form at the end of this document.
- When you click the link, you will see the consent form that must be read and completed by the young person and the parent/legal guardian (if under 18).
- When you click 'Submit' on the consent form, this means you have given consent to participate in the survey.

#### **Please note:**

- *You can withdraw from the survey at any time.*
- *When you click 'Submit' on the consent form and/or the survey, you will not be able to retrieve the information submitted.*
- *The Survey questions do not ask you for any identifying information and the results are anonymous.*

### 3. What will the survey ask about?

The survey asks general questions about you and your experience of youth programmes. You can skip any question you do not want to answer. You will not be asked for your name or any other identifying details. This is to ensure that your answers can be anonymised.

### 4. How long will it take to complete the survey?

The survey takes approximately 15 minutes to complete. For each question, you select one response that is true for you from a list of possible responses.

### 5. Why have I been chosen?

This research is engaging with young people aged 14-18. You have been invited to participate because you are within the age range and are a current member of [name of organisation]. [name of organisation] is participating in this study to learn more about the experiences of young people so it can continue to improve the educational programme.

## **6. Do I have to take part in the survey?**

Participation in this survey is voluntary. You can withdraw at any time. Please note that once you complete the survey and click 'Submit', you will no longer be able to go back or change the information submitted.

## **7. Why do I have to give consent?**

We want to ensure that you are happy to participate in a research study that asks about you and your experience. If you are under 18, your parents/guardians must also consent. You have the right to information that will help you understand the purpose of the research and the right to decide if you would like to get involved.

## **8. What will happen to the results of the survey?**

The consent form and Survey are submitted to [name of organisation]. [name of organisation] will store these securely in our internal servers. [name of organisation] will retain the consent forms for two years, until [date].

The anonymised survey results will be sent to the research team to compile a report. The anonymous findings will be shared with project partners for research purposes. The consent form and the Survey responses are not linked. All the information that [name of organisation] collects is strictly confidential. Participants of the survey cannot be identified in any reports or publications and your name and other personal information will not be made available to external stakeholders.

## **9. What should I do if I have any further questions?**

***Please contact the following for questions about:***

- Survey participation: [insert email address]
- Data Protection or to request a copy of your consent form: [insert email address]

***Accessing the consent form and survey:***

Thank you for reading this Information Sheet. If you would like to participate in the survey, please proceed to the consent form by clicking [this link] here.

## **Survey Consent Form**

- Full Name of Parent/Guardian and 18-Year-Old Member.
- Full Name of Youth Member.
- Which [Scouting/YMCA/other] group are you a member of?
- I have read the Information Sheet and understand the purpose of the survey. I am satisfied to participate.
- I understand that participation in this research is voluntary.
- I understand that once I click 'Submit' on the survey, I cannot get my answers back.
- I understand that I can withdraw participation in the survey at any time before the completion and submission of the survey.
- I understand how the anonymised data will be managed.
- I consent to participate in the survey.

# FOCUS GROUP INFORMATION SHEET

*We recommend that you and your child read this together.*

## **1. What is the purpose of this focus group?**

The focus group is part of an impact study conducted by [insert your organisation name]. The study aims to explore the impact of youth work on young people so that staff and volunteers of youth organisations can better understand the impact of their work and youth work practice.

## **2. Why have I been chosen?**

Your Scout/ YMCA/other Group has indicated interest in participating in the research. We are extending this invitation to you to participate. We aim to engage 6-10 young people between the ages of 14-18 in a 1-hour focus group.

## **3. Do I have to take part?**

Participation in this focus group is voluntary. Please note you can leave the focus group at any stage. If you agree to participate you must fill out the Parental/Guardian & Young Persons Consent Form. This form should be filled out by the parent/guardian and young person together.

## **4. How do I take part?**

Once you are satisfied with the information provided in this sheet, you can access the consent form at the end of the document. When the parent/guardian and young person have given consent, the focus group facilitator will be in contact with a youth leader from your Group to help arrange a suitable date, time, and venue. Please note that the focus group is for young people. The role of parents/guardians is to support the research project by consenting to the participation of their child. Please note that refreshments will be provided.

## **5. What happens in a focus group?**

A focus group is a research method that brings a small group of people together to answer questions and discuss key topics. The style of this focus group will be fun, and activity based. The discussions will be audio-recorded. The Facilitator will work with the youth leaders of the young people to ensure the needs of the group are understood and met, and to support coordination of venue logistics. The Facilitator will be accompanied by a staff or volunteer member of [name of organisation] who will be present in the room for notetaking and ratios.

## **6. What are the possible risks of taking part?**

While we hope your experience will be pleasant, it is possible that an unexpected discussion may make some people uncomfortable. A participant can choose to leave the room at any time. Support will be available if you need to do this and you can come back in if you wish. You can withdraw from the study at any time.

## **7. How will the data collected from the focus group discussion be used?**

The focus group discussion will be audio-recorded. The recording will be transcribed by an external company and anonymised. Any personal data or identifiers will be removed during this process. The only data that will be included is geographic e.g. Province, urban or rural. The anonymised data will be shared with the research team to compile a report. This may be published in other reports, or presented at conferences.

Once the transcription is completed, the audio files will be securely destroyed. The external transcription company is subject to a confidentiality agreement and will not retain any data after the process is complete. [name of organisation] will securely store the anonymised transcriptions on our internal server and will retain them for 2 years by [date].

## **8. What will happen to the results of the project?**

All the information that we collect about you during the research will be kept strictly confidential. Participants will not be identified in any reports or publications, and your name and other personal information will be anonymised or excluded.

## **9. What happens at the end of the project?**

*The anonymous findings will be:*

- published in a report and shared with partners.
- shared with other youth organisations in the country and internationally, and with academic institutions as part of best practice sharing to improve the provision of youth work services.

You may request a summary of the research findings by contacting us at [email address]. You will not be able to request a copy of your contribution as all data will be anonymised and no names will be kept on file.

## **What should I do if I have any further questions?**

**Please contact the following for questions about:**

Focus Group Participation: [email address]

Data Protection Queries: [email address]

### **Consent Form:**

*Please click the link to access the consent form: [link]*

#### **Focus Group Consent Form**

- Full Name of Parent/Guardian and 18-Year-Old Member.
- Full Name of Youth Member.
- Which [Scouting/YMCA/other] group are you a member of?
- I have read the Information Sheet and understand the purpose of the focus group. I am satisfied to participate.
- I understand that participation in this research is voluntary.
- I understand that I can withdraw participation from the group at any time.
- I understand how the anonymised data will be managed.
- I consent to participate in the focus group.

# APPENDIX E

## SURVEY QUESTIONNAIRE

### In Section one, please note:

Provision for more than one response in Q9 (religion). NB If you proceed with this version then the text of the Introduction will need to be amended with the bracketed words '(except for Q9)' inserted after the words 'from a list of possible responses'.

If you have a standard question format for gathering data about ethnic identity (e.g. there is one in the Irish Census of Population) then such a question should be added, and the number of questions in the introduction should be changed.

### In Section two, please note:

For clarity, some statements have two variations to aid comprehension and ease of translation into your local languages. When disseminating the survey, depending on your sampling approach, you can choose to upload it to an online platform or, where necessary, print copies to cater to communities with limited internet or computer access. Ultimately, please ensure all responses are consolidated into a single file after data collection.

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## Measuring the Impact of Youth Organisations

### Young People's Survey

#### Introduction

This survey is part of an impact study conducted by [insert name of organisation] which explores the benefits for young people of participating in youth programmes.

The survey asks you to reflect on and respond to a number of statements about your experiences in [insert name of organisation]. You will not be asked for your name or any other identifying details. The information gathered from the survey will be used to assess and improve the benefits of youth work with young people. The anonymous information from the survey will be shared with the research partners and may be published.

There are 45 questions in total in the survey. In each case you are simply requested to select one response from a list of possible responses, [except for Q9], and the whole survey should take no longer than 10-12 minutes to complete. You can skip any questions you do not wish to answer.

If you are happy to consent to participate please tick the box below to proceed.

## Section one

This section of the survey asks for some details about your general background. None of the information will make you identifiable.

### 1. Which of the following best describes the place where you live?

- A big city
- The suburbs or outskirts of a big city
- A town or a small city
- A country village
- A farm or home in the countryside

### 2. How long have you been a Scout? OR How long have you participated in the YMCA/other?

- Less than one year
- One to two years
- Three to four years
- Five to six years
- Seven to eight years
- Nine to ten years
- Eleven years or more

### 3. How often do you attend the Scout troop/unit/group? [amend as appropriate]

(tick whichever comes closest)

- Most days
- Two or three times a week
- Once a week
- Once every two or three weeks
- About once a month
- Less than once a month

**4. What age are you?**

- 14
- 15
- 16
- 17
- 18

**5. Are you:**

- Male
- Female
- Other (please specify)
- Prefer not to say

**6. This question concerns your parent (or guardian other person) who the main income earner in your family or household is. If you think about this parent's/person's primary occupation, please select which category it is closest to from the list of examples under Occupation 1 below (it does not have to be an exact match).**

**If two parents (or guardians or others) earn approximately the same, please select a category for one parent/guardian here, under Occupation 1, and then move to question 6 to select a category for the other parent/guardian under Occupation 2.**

**Occupation 1**

- Sales manager, shop owner, shop assistant, insurance agent, buyer.
- Secretary, clerk, office manager, civil servant, bookkeeper.
- Foreman, motor mechanic, printer, seamstress, tool and die maker, electrician.
- Restaurant owner, police officer, waitress, barber, caretaker.
- Unemployed/not currently working.
- Doctor, teacher, engineer, artist, accountant, nurse, member of clergy/religious professional.
- Labourer, porter, factory worker, cleaner.
- Farmworker (e.g. farm labourer, tractor driver).
- Farm owner, farm manager.
- Bricklayer, bus driver, cannery worker, carpenter, sheet metal worker, baker.
- Banker, business executive, government official, union official.

**7. If relevant, please select a category for the second main income earner in your family or household from the list below (it does not have to be an exact match). If not relevant, please move on to Question 7.**

**Occupation 2**

- Sales manager, shop owner, shop assistant, insurance agent, buyer.
- Secretary, clerk, office manager, civil servant, bookkeeper.
- Foreman, motor mechanic, printer, seamstress, tool and die maker, electrician.
- Restaurant owner, police officer, waitress, barber, caretaker.
- Unemployed/not currently working.
- Doctor, teacher, engineer, artist, accountant, nurse, member of clergy/religious professional.
- Labourer, porter, factory worker, cleaner.
- Farm worker (e.g. farm labourer, tractor driver).
- Farm owner, farm manager.
- Bricklayer, bus driver, cannery worker, carpenter, sheet metal worker, baker.
- Banker, business executive, government official, union official.

**8. Do you have any long-standing illness or disability?**

- Yes
- No

**9. Are you a member of any particular religion or denomination?**

- Yes
- No

**If Yes, which one(s)?**

- Buddhism
- Christianity
- Hinduism
- Islam
- Judaism
- Other (please specify)

## Section two

Below you will find a list of statements – 1(a), 2(a) etc - about individual experiences, qualities and skills. You are asked to consider the extent to which each statement is true of you.

Each of these has an accompanying statement – 1(b), 2(b) etc - which relates to [name of organisation]. You are asked to consider how true that statement is in your own case.

For all of these statements, please assign a score on a scale from 1 to 10, where 1 means “Not true at all” and 10 means “Absolutely true”.

1(a) I try to live my life in a healthy way (nutrition, sleep, exercise).

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

1(b) [Scouting/YMCA/other] encourages and supports me to live healthily.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

2(a) I am curious about the world around me and enjoy learning new things. /OR I’m curious about what’s happening around me and enjoy discovering new things.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

2(b) [Scouting/YMCA/other] provides opportunities to satisfy my curiosity and learn new things.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

3(a) I am confident in taking the lead in group or team activities. /OR I’m comfortable stepping up and leading in group or team activities.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

3(b) [Scouting/YMCA/other] has developed my confidence in my leadership skills.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

4(a) There are people in my life with whom I’m comfortable sharing feelings and emotions.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

4(b) I know some people I can share my feelings with through [Scouting/YMCA/other] .

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

5(a) I’m aware of how my behaviour (my actions and my lifestyle/ the way I live) affects my mood and my feelings.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

5(b) I have learned about the link between behaviour and feelings through [Scouting/YMCA/other]. /OR I have learned how behavior and feelings are connected through my time in [Scouting/YMCA/other].

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

6(a) When facing challenges and difficulties, I draw strength from my belief that life has meaning. / OR I find strength in believing that life has a purpose.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

6(b) Participating in [Scouting/YMCA/other] strengthens me in the belief that life has meaning./ OR Being part of [Scouting/YMCA/other] helps me feel stronger in believing that life has a purpose.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

7(a) I'm aware of how the things I do and say can affect other people's feelings and emotions. / OR I know that what I do and say can impact how other people feel.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

7(b) [Scouting/YMCA/other] has helped me to become aware of how I can affect other people's feelings and emotions./ OR [Scouting/YMCA/other] has shown me how my actions and words can change how others feel.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

8(a) There are people in my daily life that I admire and respect.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

8(b) I have met some people that I admire and respect through [Scouting/YMCA/other].

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

9(a) I have a sense of respect and wonder at the natural world.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

9(b) [Scouting/YMCA/other] develops and sustains my sense of respect and wonder at the natural world.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

10(a) I have a good understanding of the human body and how it works.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

10(b) Participating in [Scouting/YMCA/other] has added to my understanding of the human body and how it works.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

11(a) I know the difference between reliable and unreliable sources of information./ OR I can tell which information sources are trustworthy and which ones aren't.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

11(b) What I have learned through [Scouting/YMCA/other] helps me to tell the difference between reliable and unreliable sources of information./OR What I've learned from Scouting/YMCA/CJV helps me tell which information sources are trustworthy and which aren't.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

12(a) I see the value for me of having a quiet place/space for reflection, away from the daily routine of school, work or family. / OR I find comfort in having a quiet space to relax and reflect, away from the regular activities of school, work, or family.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

12(b) [Scouting/YMCA/other] provides me with a quiet place/space for reflection/ OR [Scouting/YMCA/other] gives me a peaceful spot where I can have some quiet time to think.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

13(a) I feel confident thinking for myself and solving problems.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

13(b) [Scouting/YMCA/other] helped to shape/ contributed to the development of my thinking and problem-solving skills.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

14(a) Before I act, I try to think about how my actions might affect others. / OR Before I do something, I take a moment to think about how my actions might impact others.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

14(b) [Scouting/YMCA/other] encourages me to consider the effect of my actions on others.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

15(a) I choose to be involved in activities in my community (unpaid) for the benefit of others or the environment.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

15(b) [Scouting/YMCA/other] enables and supports me to engage in activities for the benefit of others or the environment.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

16(a) I think my friends would say that I'm consistent in what I believe, what I say and what I do/ and true in my beliefs, words, and actions.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

16(b) I have learned through [Scouting/YMCA/other] the importance of being consistent in what I believe, what I say and what I do./ my beliefs, words and actions.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

17(a) I choose to engage in physical activity (other than at school) at least once a week.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

17(b) [Scouting/YMCA/other] provides opportunities and encouragement/ offers chances and support to engage in regular physical activity.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

18(a) I believe everyone should be respected and treated the same, no matter where they're from or who they are. / OR I believe all people should be treated with respect and equality, no matter who they are or where they're from.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

18(b) [Scouting/YMCA/other] has helped to shape my belief that everyone should be treated the same.

1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10

**Thank you very much for participating in the survey!**

# APPENDIX F

## Reporting Statistical Analysis

### Key terms:

**Data:** normally numeric code representing observations collected in a study

**Population:** Entire group of interest for your study

**Sample:** A cohort selected from this population

**Statistic:** value representing a characteristic of the sample

**Parameter:** value representing a characteristic of the population

In research reports statistical analysis is generally reported in the following sections:

- Methodology – when describing the study sample
- Results/Findings – when describing the key findings from the study, graphically illustrating this analysis and discussing the significance of these findings

### Reporting Analysis

It is important to bear in mind a number of factors when reporting analysis

- **PURPOSE** - Statistical analysis is a valuable tool in influencing policy and practice change – consider what your findings are saying and which results are most useful in reporting for the purposes/objectives of your study. Ask yourself for each finding you wish to use, what does this bring to my report/our understanding of the topic?
- **FULL PICTURE** – It is critical not to 'cherry pick' results for reporting. While there may be a temptation to only present the 'best' results, the 'disappointing' results are as important to report. In other words, while you may have assumed that there would be a significant correlation between two variables related to perceived impact of youth work and the analysis shows in fact there was not, this is important to note and, while further analysis might help explain why by looking at other factors, there may be other unanswered questions which could be explored in further phases of study. Indeed any anomalies in the data between expected and actual results could warrant a further refinement of our methodological tools or could provide lessons in terms of the sampling for the study/approach to our research. Indeed, some nuances could be uncovered in the qualitative part of our analysis (focus group data) which could help shed some light on the picture emerging from the quantitative data.
- **UNDERSTANDING** - Ensure that you understand the statistical analysis you are using in order to be able to make it understandable to the reader. Do not use advanced analysis if you are unsure of what the results mean or how they can be interpreted and explained in the context of your study.
- **EXPLANATION** - It is important that each part of your analysis/graphing of your results is explained and that all boxes and figures are individually numbered and referred to by number when detailing analysis – i.e. "As can be seen in Figure 2.1 below, the majority of the respondents were involved with a youth project for more than 2 years (65%), with some involved for greater than two years (25%) and a smaller number involved for less than 2 years (10%)"
- **DETAIL** – Make sure to label all graphs/pie charts/boxes appropriately for ease of reference and for readability.
- **CAUTION** – Avoid presentation of raw results/raw data from statistical packages, in other words make sure you have converted your data into readable form by converting raw data returns to reader friendly tables/graphs

There are a number of considerations when reporting on statistical data analysis including approach to statistics, level of measurement and types of statistical procedure.

## Approach to Statistics:

1. Univariate: focusing on one variable. Used routinely in the description of samples – for example looking at the age spread of the sample. Or looking at the range of years of participation in Scouting.
2. Bivariate: looking at the relationship between two variables – for example, looking at gender and response to any of the SPICES statements
3. Multivariate: look at the relationships between three or more variables – for example, looking at gender, length of time participating in youth work and response to any of the statements on personal development.

## Level of Measurement

The level of measurement used for the data determines what kind of statistical procedures can be used for analysis. In our survey the data is either nominal (categorical) or scale (specifically in Part B of the survey with the Likert scale items). A comprehensive overview and explanation of levels of measurement was set out in MIYO Deliverable 2.1, Recommendations on Methodology. Univariate, bivariate and multivariate approaches are applied to nominal and equal interval scale variables and both bivariate and multivariate approaches are used when looking at a combination of nominal and equal interval scale variables in our analysis.

## Types of Statistical Procedure

There are three main types of statistical procedure

1. Descriptive Statistics
2. Inferential Statistics
3. Measures of Association

## Descriptive Statistics

This is a basic observation or summary of our data, most commonly used to describe the sample overall. A single number is used to describe a whole set of data – e.g. average/mean or percentage.

Example: 60% of respondents were aged 14-15 years

Or

There was a mean response of 8.1 to the statement "Scouting has helped me develop my confidence in my leadership skills", meaning respondents were more likely to respond positively to this statement.

Mean and median are measures of central tendency and are used for equal interval scale variables. Median statistics are less sensitive to outliers, giving the figure for the 50<sup>th</sup> percentile of responses. Another useful statistic for reporting on sample descriptives is the Standard Deviation which provides a number for the average variance from the mean. This figure, presented along with the mean, provides a better picture of the spread of responses e.g. whether responses to the statements on personal development are more tightly grouped around the mean figure or further spread between positively and negatively inclined responses.

e.g. "In relation to Intellectual Development on the SPICES framework, "Having opportunities to learn new things" (m= 9.2, SD= 1.1) was rated highest with little variance in average responses among participants"

## Inferential Statistics

Inferential statistics allow us to look at our observations as a way of making inferences more widely. In other words, while our descriptive statistics give us an average for our sample, inferential statistics allow us to calculate the accuracy of a sample statistic as an estimate of population parameter.

Selecting the appropriate inferential test allows us to calculate whether our observations are due to chance or if we had selected another sample from the population would we have come up with the same results?

Reporting on the 'probability' that the results occurred by chance, is through a test of 'significance'. The closer the figure reported is to 0 the more likely it is not to have occurred by chance.

Most usually in the Social Sciences reporting significance or 'statistically significant' results means that the observed probability is 0.05 or less.

The selection of tests is dependent on a number of factors:

- Size of sample
- Distribution of sample
- Type of variable

Parametric and non-parametric tests refer to the first two conditions:

Non-parametric tests are used with smaller or unusually distributed samples

The type of inferential test is also determined by the types of variables used

A Chi-Square test is an example of an inferential test of significance based on two nominal variables

For example:

"significantly more males than females reported a disability [ $\chi^2(1) = 33.5, p < .001$ ]."

The first part of the reported result above includes the number of subjects/conditions – in this example 1 of 2 groups, the figure shown is the sample statistic and the p value is the probability that the result occurred by chance i.e. 1 in 1000

Examples of different tests include Independent Samples T-Tests, Pearson Correlation and ANOVA (parametric)

And Mann-Whitney U, Spearman Correlation and Kruskal Wallis (the respective non-parametric alternatives)

## Measures of Association

A measure of association tells us about the strength and the direction of the relationships we have observed in our data.

In cases where there are a number of statistically significant results, it can tell us which is the strongest.

Again choice on the measure of association depends on the type of variable – for example, a correlation co-efficient is used for analysing the strength of relationships in the case of nominal variables and odds ratios are used similarly for equal interval scale variables.

### Further reading and resources:

Presenting Survey Results:

<https://www.qgso.qld.gov.au/issues/671/presenting-survey-results-report-writing.pdf>

Interpreting Graphs and Charts:

[https://iase-web.org/documents/papers/icots8/ICOTS8\\_7G3\\_KEMP.pdf](https://iase-web.org/documents/papers/icots8/ICOTS8_7G3_KEMP.pdf)





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