Demystifying Research

Training Modules designed to empower mental health consumers to engage more fully in research

A collaborative project developed in partnership between:
The University of Sydney; Schizophrenia Fellowship of NSW Inc.; Pioneer Clubhouse (Consumer Research Team); Queensland Centre for Mental Health Research

Funded by: Australian Rotary Health Research Fund
Foreword

Consumers deserve to be more than token members of research teams studying mental health interventions. However, conducting research requires special skills and most consumer members of research teams require special training. Little has been done to make the ‘skills of research’ accessible to consumers. The absence of an established method of consumer research training likely has been a barrier to collaborative research in mental health.

The few training programs that have been developed include detailed and theoretically-driven material; they stop short of teaching application. The complexity of the materials and the mode of delivery potentially minimise access for many consumers who possess all attributes required to be valuable members of a research team but are troubled by poor concentration or memory.

Before embarking on the creation of these materials, we asked ourselves several questions: What are the essential elements that will ensure collaboration and ownership of the research process? What methods of teaching will maximise accessibility of the materials to a broad range of mental health consumers? What and how much should be included?

We hope that these training modules enable you to make accessible the secret language of research to newly-employed consumer researchers. In so doing, we believe that they will help to reduce one of the few remaining hurdles to genuine consumer collaboration in research!

This project reflects a partnership between The University of Sydney, the Schizophrenia Fellowship of NSW Inc., consumer members of the research team at Pioneer Clubhouse and the Queensland Centre for Mental Health Research. The project was made possible through the generous funding of the Australian Rotary Health Research Fund.

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Outline of the Training Modules
### Outline of the Training Modules

**Module 1: Welcome and Introduction**
- Introduction to the course and to each other.
- Getting to know the Trainer.
- Introducing ourselves and getting to know each other.
- What each person is hoping to get from the training sessions.
- Deciding when our group will meet.
- Setting the rules and expectations of our group.

**Module 2: Taking the Mystery Out of Research**
- What is ‘research’?
- What steps are involved in doing research?
- Deciding on a research question (what we want to find out).
- Creating a plan to answer the research question.

**Module 3: Ways of Finding Answers to Research Questions**
- What is ‘research’? (Reminder)
- Choosing a research method to use.
- Getting to know our own research question:
  - What is our research question?
  - How are we going to find out the answer to our research question?

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Module 4: Making Sure Our Research is of Good Quality (Rigorous)
- Learning what things are needed for good quality research.
- Learning about ‘sampling’ for research.
- Understanding ‘validity’ in research.
- Understanding ‘reliability’ in research.

Module 5: Ways to Collect the Information We Need to Answer Our Research Question
- Learning about ONE of the following research methods.
- Thinking about the strengths and weaknesses of that method.
  
  A. INTERVIEWING – Structured, Semi-structured, Unstructured
  B. FOCUS GROUPS
  C. OBSERVATION
  D. QUESTIONNAIRES

Module 6: Research Ethics and Confidentiality
- Learning about what ‘ethical’ research is.
- How do we ensure we are conducting research in a responsible way?

Module 7: Managing the Research Process
- What do we do if something unexpected happens?
- How do we get support and supervision?
- What resources do we need so we can do good research?
Module 8: Making Sense of the Information Collected
(How can we make sense of the information we collected? How does it help us to answer our research question?)

♦ Learning about ONE of the following research methods.
♦ How to interpret our information to answer the research question.

A. WORKING WITH NUMBERS

♦ How to use numbers to answer a research question (Quantitative Analysis).
♦ How to put the information together and understand what it means (Synthesis and Interpretation).

B. WORKING WITH WORDS

♦ How to use descriptive words to answer a research question (Qualitative Analysis).
♦ How to put the information together and understand what it means (Synthesis and Interpretation).

Module 9: Making a Good Presentation
(Getting across the findings of our research)

♦ Learning about how to share our research results with other people.
♦ Presenting research results at conferences/meetings.
Module 1

Welcome and Introduction
Module 1: Welcome and Introduction

What we will learn during this session:

1. We will meet the Trainer and learn who else might be involved in the research team.
2. We will know the names and a bit about everyone in the training course.
3. Together we will agree on the time, frequency and length of each session.
4. Together we will set the rules and expectations of our group.

Learning Task 1: Getting to know the Trainer
The Trainer/s will introduce themselves to us and explain a little about the training we are about to start.

Learning Task 2: Getting to know each other
Split into pairs and introduce yourself to the other person. Find out two things that your partner is really passionate about – it doesn’t have to be anything to do with this research project! Be ready to introduce your partner to the whole group.

Learning Task 3: What are my own expectations of these training sessions?

3.1. Individually, use the lines below to write down what you would like to get out of these sessions. Next, each person should read one of their ideas out to the group.

______________________________________________________
______________________________________________________
______________________________________________________
Learning Task 4: When will we meet, how often and for how long?
Think about which days and times are possible for you personally to meet the group. The Trainer will then assist the group to set regular times that meet everyone’s individual timetables.

4.1. Timetable of MY availability:

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We recommend that you meet at least once a week and that the day and time is set for the whole course where possible. With breaks in the middle of the sessions, each session should run for around 90 minutes.

In our experience, time will need to be made available for a consumer who is unable to attend a session so that they are able to ‘catch-up’ with the content and be ready to re-enter the group for the next session.

4.2. Decisions made by the group:

Meeting timetable:

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How many weeks will we meet for?: _____________________________

From what date to what date?: _____________________________
Learning Task 5: Rules and expectations of the group
In this training manual, each time you see a box like the one below, we will all read it. Usually, a volunteer is needed to read aloud. First choose a volunteer, then everyone else can follow along silently as the volunteer reads to the group. Sometimes we will each read silently to ourselves.

Reading: read individually, or a volunteer can read aloud.
All teams or groups have rules that ensure things run in the way in which the team wants them to. What rules or expectations do you feel are important for our team or group?

5.1. Individually, write down your ideas below.

______________________________________________________
______________________________________________________
______________________________________________________
______________________________________________________
______________________________________________________
______________________________________________________
______________________________________________________
______________________________________________________
______________________________________________________
______________________________________________________
5.2. Now share your ideas with the whole group and write down the ideas that are agreed upon:

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<th>RESEARCHERS IN TRAINING: GROUP EXPECTATIONS &amp; RULES</th>
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This list will become a useful set of notes for you of what the participating consumers want to get out of the training process.

**SUMMARY:**

In this Module, we have met the Trainer/s and the other consumer Researchers in Training. We have set up the times that our training sessions will run and have agreed upon the expectations we have of one another in the group. The next session will start by exploring what research is really all about.
Module 2

Taking the Mystery Out of Research
Module 2: Taking the Mystery Out of Research

What we will learn during this session:

1. We will be able to say clearly what research is and the steps involved.
2. We will realise that we all do research in our normal daily lives.
3. We will be aware of the different roles that we or other people might have in a research project.
4. We will develop a research question and think about how we might go about answering the question.
5. Finally we will think about other people that might be interested in our research.

Learning Task 1: What is research?

1.1. Individually, write down some ideas of what you think research is. Be ready to share one idea with the whole group.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

1.2. Together with the whole group, discuss your ideas.

Gather the group’s best ideas.
Learning Task 2: The steps involved in research (called the ‘Research Process’)

2.1.

Reading: read individually, or a volunteer can read aloud.
Research is a process of asking questions and then setting out to answer them.
Research involves the following steps:
Step 1: Agreeing on the question you want to answer.
Step 2: Deciding the best way to answer your question.
Step 3: Collecting the information.
Step 4: Making sense of the information.
Step 5: Letting other people know what you found.

2.2.

Reading: read individually, or a volunteer can read aloud.
If put very simply, research involves asking a question and answering it, for example:
Who in the group feels that they have been a researcher before?

Let’s discuss this question together now.

2.3. Role play:

♦ We need a volunteer from the group, so first select a volunteer.
♦ Laid out in the room are two baskets.
♦ In one basket are ten oranges. (There are differences in the prices and appearance of the oranges.)
In the second basket are three different packets of biscuits (all with the same price).

The Trainer will give the volunteer a shopping list.

The volunteer must choose three oranges and one packet of biscuits.

2.4. With a partner, use the research steps above to discuss:

a) What questions will the shopper be asking?

b) How could the shopper collect the information to answer these questions?

2.5. Whole group discussion:

- Is this shopping activity a form of research?
- In what other ways do we do research everyday?

BREAK 20 minutes

Learning Task 3: Let’s develop a research question

All researchers have questions that need answers. Some people want to explain something or understand something. Some people need an answer to a problem. Some want to know what others think or feel about an issue.
3.1. With one or two others, think of a question that you feel is important to mental health consumers, staff or services and that you would be interested in answering. Then think about how you could answer it. Someone from each group needs to write your answers down. Be ready to share your question with the whole group.

a) Agree on an issue that is important to you and that you would like to understand better.

Issue: ____________________________________________

b) Write down the question you want to answer about that issue.

Question: _________________________________________

3.2. A representative from each small group will now present their question to the whole group. The whole group will listen and discuss these questions together. Finally we will choose one group question.

Group question: ______________________________________

Write them all down for the group to see and encourage a brief discussion about the questions, especially discussion that will assist groups to make their questions more measurable and specific. Next choose one question that the whole group will pursue in the next task. The groups will see that there are lots of ways of answering the same question. You will also use this question in following sessions so ensure it is clear and answerable.

Learning Task 4: Creating a plan to answer the question

4.1. With one or two others, create a plan to answer the research question from Learning Task 3 above. Ask a volunteer to write down the answers to the following:
a) What information will we need to answer the question? (You can be very general; for example we might want to know how many people visit a certain place or service. It’s fine to write more than one answer.) ______________________________________
___________________________________________________
___________________________________________________
___________________________________________________
___________________________________________________

b) How will we get the information? (Where will it be collected? Who will it be collected from? Who will collect it?) ______________________________________
___________________________________________________
___________________________________________________
___________________________________________________
___________________________________________________

c) Who else might we want on the research team because they have important knowledge or skills? (Be very general. For example, a consumer from Clubhouse, the CEO of an organisation, an experienced researcher, etc.) ______________________________________
___________________________________________________
___________________________________________________
___________________________________________________
___________________________________________________

d) Who will be interested in our final answer? ______________________________________
___________________________________________________
___________________________________________________
___________________________________________________
___________________________________________________

e) Is there anyone who might try to stop us from answering our question? Why? ______________________________________
___________________________________________________
___________________________________________________
___________________________________________________
___________________________________________________

4.2. Next a volunteer from each group should share their answers with the whole group.

You all set out to answer the same question.

Look how many different ways there are of answering one question!
SUMMARY:

In this Module, we have explored research as a process of asking and answering questions. Hopefully we now each realise that we all conduct research each time we choose what product to buy. In the following weeks, we will learn what is involved in each step of the research process. We have already developed a research question. We will use our questions in the next modules when we learn more about collecting the information we need to answer them. We have also thought about who would be involved in a research project and who would be interested in what we find out.
Module 3

Ways of Finding Answers to Research Questions
Module 3: Ways of Finding Answers to Research Questions (How are you going to answer your question?)

What we will learn during this session:

1. We will be clear about the question our research team is trying to answer.
2. We will decide what way of collecting information best suits our research question.

Note: This does not mean we will know HOW to collect the information yet (we are going to learn that in later sessions). It means that we will understand what sort of information might answer our question.

Learning task 1: What is ‘research’?
The box below contains the definition of research and the steps in the research process. We began with these last week also:

Reading: read individually, or a volunteer can read aloud.

Research is a process of asking questions and then setting out to answer them. Research involves the following steps:

Step 1: Agreeing on the question you want to answer.
Step 2: Deciding the best way to answer your question.
Step 3: Collecting the information.
Step 4: Making sense of the information.
Step 5: Letting other people know what you found.
Learning task 2: Choosing a research method

2.1. Get into the same small groups as in the last training session. Write down the question your group worked on. (Remember how you planned to answer the question.)

Question: ____________________________________________

a) Where did you plan to collect information? ______________

b) From whom? ________________________________________

c) How? ______________________________________________

2.2. Reading: read individually, or a volunteer can read aloud.

There are three types of research for answering a question. When we have a question to answer, we choose the type of research that best fits our question. The three types differ in many ways; one important difference is the kind of information (data) we collect.

1. **Qualitative Research** uses words as data.
2. **Quantitative Research** uses numbers as data.
3. **Combined Qualitative and Quantitative Research** uses both words and numbers as data.
2.3. In our small groups, discuss which type of research (described above in 2.2.) would best answer the question in 2.1. on the previous page. Why?


Remember that all the groups were answering the same question but some chose different ways to answer it. You may have chosen different research methods now also. At this point there is no right or wrong.

In later sessions we will learn much more about different ways of collecting information and how to collect it in a way that makes our research be of good quality. For now, just think about the variety of types of information that exist and the ways we might get that information.

2.4. Someone from each small group will report its conclusions to the whole group now.

a) Remind us how you will answer the question.

b) Tell us what type of research (quantitative or qualitative) fits best and why.

Break 20 Minutes

Learning Task 3: ‘The Research Question’

Now to the research project that we are doing this training for.

In the last activity we used a question we had created to explore the types of research. Now we are going to think about the actual study that we will be working together to complete. For this training session, we assume that the question and basic method have been developed. If this is not the case, a number of additional sessions will be needed to collaborate and develop the study. Assuming a research question and brief plan already exist, this is the time for us to learn why and how the question and method were selected.
3.1. In the same small groups, write down our research question.

OUR RESEARCH QUESTION:

3.2. Write down what has been decided about how you will get the information?

a) Where or who will you get information from? __________________________
   ______________________________________________________
   ______________________________________________________

b) What will you do? ______________________________________
   ______________________________________________________
   ______________________________________________________

3.3. Now, in the small groups, discuss which type of research described earlier best fits our question and why?

a) Type of research: ______________________________________
   ______________________________________________________
   ______________________________________________________

b) Why? ________________________________________________
   ______________________________________________________
   ______________________________________________________
3.4. The Trainer will now tell us what design has been selected and why.

Facilitate a discussion exploring whether they all came to the same conclusion/s.

Remind the groups that there can be more than one way to think about research.

SUMMARY:
In this Module we have learnt what question our research team is trying to answer. We have also decided what way or ways of collecting information best suit our research question.

You need to conclude this session ensuring that your team is clear about the research question and also the method of data collection for your project together.
Module 4

Making Sure Our Research is of Good Quality (Rigorous)
Module 4: Making Sure Our Research is of Good Quality (Rigorous)

What we will learn during this session:

1. We will learn to identify some principles to ensure we conduct good quality research.
2. We will learn to apply these principles to our upcoming research.

Learning task 1: Sampling

1.1.

Reading: read individually, or a volunteer can read aloud.

Researchers never have enough time or money to collect information from all the relevant people or places. So, we collect information from a ‘sample’ that represents a larger group. This is called ‘sampling’. The important thing about sampling is choosing people or places that are very much like all the people and places they represent. Otherwise, you may get a biased or wrong answer. In that case the research would not be of good quality.

1.2. With one or two others, answer the following questions about sampling.

In the discussion section, be sure that group members understand that these questions are about ALL mental health consumers in the State.
Say our research question is:

**Research Question:**
What services do mental health consumers living in this State rate as the most useful?

What are the potential problems of asking:

a) Only women?

The answers we get from each of these specific groups might not be the answers we would get if we asked every consumer in the State. They would be a **biased** sample not a **representative** sample.

1.3. **We want to ask this question to a sample of consumers (not every consumer in the State), but we still want to have confidence that the answers will represent everyone’s opinion.**

In small groups, talk about what we could do. You can write your group’s ideas below.
Be prepared to share ONE idea with the whole group. 

1.4. Next, each small group will share one idea with the whole group.

1.5. Now let’s think again about our own research question.
   a) Work with one or two others. First, write down the question below:

   b) Last session someone from the research team told us a little about how we will do our study. Write down what you remember about the research participants (the people we will collect information from):

   c) What else do you think it is important to know about our study participants so we can be sure they represent everyone important to helping us answer the question?

   d) Now share some ideas your group had with the whole group.
Learning Task 2: Validity

Validity means making sure the answers REALLY answer the research questions.

Work with one or two others to discuss the next questions about validity.

2.1. Say we want to know how happy consumers are with the medication they are receiving. If we ask them:

   a) Will the answers tell us everything we want to know about how happy the consumers are with their medications? _____________

If you will not learn how happy consumers are with their medications, then the question is not a valid way to get the answer.

b) Below, write down how you might collect valid information to answer the next question. Be prepared to share ONE idea with the whole group.

   Research Question:
   How happy are consumers with their medication?

For 2.1 b) record one answer from each of the small groups and then ask if there are other important things they discussed that do not appear on the list. Fill in any blanks.

Your team needs to understand the concept of validity.
c) Discuss your answers with the whole group.

2.2. Now let’s consider OUR research question:

a) Write our research question again here:

b) Last session someone from the research team told us a little about how we will do our study. Write down what you remember about the way we will get the information we need to answer the question.

c) What else do you think is important to know about our method so that we can be sure we get valid answers to our research question? Be prepared to share ONE idea with the whole group.

2.3. Now share some ideas your group had with the whole group.
Learning Task 3: Reliability

Reliable information is the same no matter who collects it or when they collect it.

Say we want to measure how much a package weighs so we know how much it will cost to mail it. We need a reliable scale — one that will give the same measurement as the scale in the post office. If we have old scales that are inaccurate, the information they give will not be reliable.

Even if the scales could measure accurately but were difficult to read, different people might record slightly different weights. The measures of weight would not be reliable.

3.1. Work with one or two others to discuss the following questions about reliability in our study:

a) Remember what information we will collect and how we are going to collect that information.
   _____________________________________________________
   _____________________________________________________

b) If different people collect the information – how can we make sure that we all get the same answers? Be prepared to share ONE idea with the whole group.
   _____________________________________________________
   _____________________________________________________
   _____________________________________________________

 c) What else do you think is important to know about our method so we can be sure we get reliable answers to our research question?
    _____________________________________________________
3.2. Now the whole group will discuss the ideas your smaller groups came up with. Are we on track?

SUMMARY:

In this Module we have learnt about some ways to ensure that research is of good quality. We have specifically learnt about sampling, reliability and validity. We have also applied these principles of quality research to our specific research project.
Module 5

Ways to Collect
the Information
We Need to Answer
Our Research Question
Module 5: Ways to Collect the Information We Need to Answer Our Research Question

What we will learn during this session:

1. We will apply one way or method of collecting information (data) to answer our research question.
2. We will discuss the strengths and weaknesses of using this method of information collection to answer our own research question.

Choose one Topic:
There are many different ways to collect information to answer a research question. Four commonly used methods are:

A. INTERVIEWING
B. FOCUS GROUPS
C. OBSERVATION
D. QUESTIONNAIRES

Note: This module includes four methods of collecting data.

Please note, we will only cover the research method/s relevant to our own study. (This means our group will study Part A OR Part B OR Part C OR Part D.)
Module 5

Part A

Interviewing
Learning Task 1: Structured, semi-structured and unstructured interviews

1.1.

Reading: read individually, or a volunteer can read aloud.

An individual interview is simply a face to face meeting in which two people have a conversation.

In general, there are three types of interviews:

a) **Structured Interview (S-I)**
   In structured interviews, the wording of the questions, the order in which they are asked, and the possible responses are planned ahead of time and carried out exactly as planned by the interviewer.

b) **Semi-structured Interview (SS-I)**
   A semi-structured or focused interview also has planned topics or questions to cover. However the researcher and the person being interviewed are free to cover the topics in any order and to talk about additional relevant topics. By the end of the interview, all the pre-planned topics or questions must have been covered.

c) **Unstructured Interview (US-I)**
   The person being interviewed is encouraged to talk about whatever they want that is relevant to the research topic or question at hand.
1.2. Do you have any questions about the types of interviews?

Learning Task 2:

2.1. Let’s try developing some questions that might fit the description of structured, semi-structured and unstructured interviews.

Remember back to our research on oranges in Module 2, Learning Task 2.3. Imagine that we are interested in finding out which oranges people think are the best to buy. We have decided to conduct interviews of people buying oranges from the fruit shop.

a) How should we conduct a structured, semi-structured, or unstructured interview?

b) Let’s form into three groups. One group prepares a structured interview plan; the second group prepares a semi-structured interview plan; and the third group develops a question or statement that encourages people to talk about the topic in an unstructured interview.

(Notes) ______________________________________________

_________________________________________________

_________________________________________________

_________________________________________________

2.2. Present your small group work to the whole group by role playing your interview. Ask volunteers from your group to play the role of interviewer and interviewee.
Learning Task 3:
Now that we’ve had a go at doing interviews, what do you feel makes a good interview? Together as a whole group, discuss this and make a list.

Learning Task 4:
As a group discuss the strengths and weaknesses of interviewing as a method of collecting information.

a) Strengths: ___________________________________________________

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

b) Weaknesses: ___________________________________________________

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
SUMMARY:

In this Module we have learnt about different types of interviews. We have developed interview questions and have role played doing interviews. We have also discussed what makes a 'good' interview and what the potential advantages and disadvantages are of using interviews for collecting data.

REFERENCES AND FURTHER READING:

If your team feels it needs to further develop its specific skills in this method of data collection there are many texts that you might select. The references below were used to develop Module 5 and we recommend reading them:


Module 5

Part B

Focus Groups
PART B: FOCUS GROUPS

Learning Task 1:

Reading: read individually, or a volunteer can read aloud.

One way of collecting qualitative data is the use of focus groups. A focus group is a group of people engaged in a focused discussion. It is usually a one-off group whose participants may not know each other, although other authors suggest the group can meet more than once if necessary.

In a focus group, the discussion topic is focused on a single question with one or two related questions. The aim is to get a wide range of answers about the topic and to gain an understanding of, and insight into, the topic.

In general a focus group would only have 6-8 participants.

A focus group is not the same as group interviews. The emphasis in a focus group is on the conversation among group members. Group interviews concentrate on the answers given directly to the facilitator or moderator (the person conducting the focus group).

In a focus group, the facilitator can remain quiet after introducing the topic or question, especially when group participants are actively involved in discussion with each other. The facilitator simply tries to keep the conversation on the topic of interest.
Learning Task 2:

2.1. In pairs or in small groups, recall Module 2 Learning Task 2.3. on researching oranges. Create a few questions (one to three) that the group might like to use in a focus group on buying oranges. Keep in mind the characteristics of a focus group as described in Learning Task 1 on the previous page.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2.2.

a) Who would we like to have in the focus group on oranges? (Who do we think can provide information about our questions/ topic?)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

b) Where and how will we get our participants?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

c) Now present your group’s answers to the whole group.

d) Discuss together why you think a focus group is a good way to collect information to answer a research question.

________________________________________________________________________
________________________________________________________________________
Learning Task 3:

3.1. In pairs, think about the specific mental health research topic that we are involved in together. Create a few questions (one to three) that we might like a focus group to think about and discuss.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3.2.

a) Who would we like to have in a focus group on this mental health research topic? (Who do we think can provide information about our questions and topic?)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

b) Where and how will we get our participants?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

b) Now present your pair’s answers to the whole group.

d) Discuss together why you think a focus group is an appropriate way to collect information to answer our research question.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

BREAK 20 MINUTES
Learning Task 4: How to conduct a focus group

4.1.

Reading: read individually, or a volunteer can read aloud.

There are a few simple rules in conducting a focus group. As a **facilitator** remember to:

1. Greet the group “Good morning/ afternoon/ evening”.
2. Thank them for taking the time to join the group.
3. Introduce yourself – your name and your role.
4. Let each participant introduce themselves.
5. Introduce the topic and purpose of the focus group.
6. State why they have been asked to join the group.
7. State the ground rules for the group such as:
   a) No personal judgments are made of their contributions.
   b) Only one person should speak at a time.
   c) The focus group discussion is being recorded.
   d) First names are used when discussing the question but names will not be used in the report. Complete confidentiality is assured.
   e) Negative and positive comments are all welcome.
8. State how long the session will last and if there is a break in between.
9. Introduce the **observer** and what he/ she will do in the group, which includes:
   a) Watching how group members interact.
   b) Helping to write down main points of the discussion.
   c) Checking from time to time that the recording equipment being used is working.
   (In other words the observer provides extra ears and hands during the focus group’s meeting.)
10. In starting the discussion, invite the group to discuss the first issue or question you want answers for.
4.2. Using the questions you developed above in Learning Task 2 and Learning Task 3, we will now **role play** the focus group situation.

a) Choose volunteers to act as:
   - A facilitator/moderator
   - Observers
   - Group participants (6-8 members are needed)

Generally we record the audio of discussions that occur in focus groups. This ensures that we get the most exact, accurate and detailed information. It also makes it easier to analyse later. We can write on butcher’s paper or we can tape or video record the discussion too.

b) Decide in your group the best way to record the information you get from your focus group discussion:

    __________________________________________________________
    __________________________________________________________
    __________________________________________________________

c) Now let’s do the role play.

4.3. Share with the group how the role play experience felt.

a) Was the group able to provide useful information related to the questions/topic?

b) What helped the group in discussing the topic?

c) What was hard for the group in discussing the topic?

d) From the point of view of the facilitator, how was your experience in the facilitator role?

e) From the point of view of the observer, how was your experience in the observer role?

f) What are some of the advantages and challenges in using a focus group as a method of collecting information?
4.4.

Reading: read individually, or a volunteer can read aloud.

The exercise in 4.3. is called **debriefing**, which happens at the end of a focus group. Participants are encouraged to express their views about what the experience of attending focus group discussions felt like to them. At the end of the debriefing, the facilitator thanks the members for their contribution and lets them know what the next step is in the research process. It is also the time to remind the participants again of how the information from the focus group will be used.

4.5. Relate this back to our own research project:

a) Why would we use focus groups?

b) Who would be the facilitator and why?

c) How would we record the discussions?
4.6. In small groups, think about the mental health research that we are involved in.

a) How will we use focus groups to gather data?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

b) What will we observe?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________


c) Who will the participants be?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

d) How will we record our observations of the focus groups?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

e) Why do you think focus groups are useful for answering our research question?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

In this task, ensure the team can apply principles and practices of running focus groups to the needs of your specific study.
SUMMARY:

In this Module we have learnt what focus groups are and how to run them. We have experienced running a focus group and we have thought about how we would use focus groups in our study.

REFERENCES AND FURTHER READING:

If your team feels they need to further develop their specific skills in this method of data collection there are many texts that you might select. The references below were used to develop Module 5 and we recommend reading them:


Module 5

Part C

Observation
PART C : OBSERVATION

Learning Task 1:

Reading: read individually, or a volunteer can read aloud.

Observation is one of the ways of collecting data where someone observes and there is something to observe. Observations may be made of people, events, social situations, or objects. These observations can happen in naturally occurring situations or may be made from video taped recordings.

There are two ways researchers can observe. These are:

a) Participant observation: where the observer is an active participant in the event or situation and at the same time observes what is happening.

b) Non-participant observation: where the observer is present in the event or situation and just observes; or the observations are made from taped recordings of the event.

Learning Task 2:

2.1. Let’s look at some examples:

In pairs remember the learning task on researching oranges in Module 2. If we researched “What kind of oranges do people buy?” we might go to the supermarket and buy some oranges. We might ask questions of others who are also buying oranges.
Module 5: Part C – Observation

2.1. a) Would this be participant observation or non-participant observation?

b) Why?

2.2. Stay in pairs and keep thinking about research on what kind of oranges people buy. We might go to the supermarket and stand somewhere near the fruit section where we can watch people buying oranges. Imagine you have a clipboard in hand, you might be recording from which pile people pick their oranges, how many oranges they buy, and making a tally of how many people bought oranges from which pile.

a) Would this be participant observation or non-participant observation?

b) Why?

2.3. Together with the whole group, discuss your answers to 2.1. and 2.2. What would be the advantages and disadvantages of participant and non-participant observers?
Learning Task 3:
This brings us to the techniques used in observation:

♦ Unstructured observation.
♦ Structured observation.

Reading: read individually, or a volunteer can read aloud.

Unstructured observation is when no direction or guideline is used on what to observe. For example if we are interested in what oranges people buy, we might decide to go to the fruit shop and just watch people buying oranges. After observing people buying oranges, we might then write a descriptive report of our observations. This report can include anything: a description of the shop; where the oranges were located in the shop; how many piles; how many kinds of oranges; how many people bought oranges: a description of people who bought oranges eg young people, adults, children, women, men etc.

Structured observation makes use of an observation tool which tells us what we should observe. For example in our research on what oranges people buy, we would go to the fruit shop to observe. We would bring with us an observation tool which might look like the example below.
OBSERVATION GUIDE: THE ORANGES PEOPLE BUY

Instructions: At peak times, within a 30 minute period, tick the following items every time you observe someone buying oranges.

1. From which pile do people pick their oranges? Tick:
   a) Pile 1 ____________________________
   b) Pile 2 ____________________________
   c) Pile 3 ____________________________

2. What brand of oranges do they choose? Tick:
   a) Valencia __________________________
   b) Sunkist __________________________

3. What is the colour of the oranges? Tick:
   a) Lighter orange _______________________
   b) Darker orange _______________________

4. What kind of quantity do they choose? Tick:
   a) One by one _________________________
   b) By the kilo _________________________
   c) In bulk (bags) _______________________

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3.1. With the whole group, discuss the advantages and disadvantages of structured and unstructured observations.

Structured observations:

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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</table>

Unstructured observations:

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
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</tbody>
</table>

3.2. In small groups, think about the mental health research that we are involved in.

a) How will we use observation to gather information/data?
   _____________________________________________________
   _____________________________________________________
   _____________________________________________________

b) What will we observe?
   _____________________________________________________
   _____________________________________________________
c) Who will the participants be?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

d) How will we record our observations?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

e) Why do you think observation is appropriate in addressing our research question?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

3.3. Present your group answers to the whole group.

SUMMARY:

In this Module we have learnt about the difference between participant and non-participant observation as a way of collecting data. We have also learnt about and discussed the advantages and disadvantages of structured and unstructured observations. Finally we have thought about how we might use observation to collect data in our study.
REFERENCES AND FURTHER READING:

If your team feels they need to further develop their specific skills in this method of data collection there are many texts that you might select. The references below were used to develop Module 5 and we recommend reading them:


Module 5

Part D

Questionnaires
PART D : QUESTIONNAIRES

Please note:

If this is a module that your Trainers are going to use, it will be developed by them specifically around the questionnaires relevant to your study.

Trainers, please review the next pages as a guide to your own process of development for this module.
PART D : QUESTIONNAIRES

NOTE TO TRAINER:

We have not developed specific learning activities for this module. An alternative title for this might be “Getting to know our questionnaires”. There will be significant overlap with Part A of this module if the questionnaires or tools you are planning to use require an interview format.

If your questionnaires are self-report styled questionnaires that do not require the data collectors to interview or ‘guide’ the participants through the questions, many of the tasks both in Part A of this module and within the ‘Managing the Research Process’ in Module 7 will still apply and might usefully be drawn into this module.

Examining and getting to know the specific tools selected for your study with the trainees, is critical to the relevance and success of this module. We suggest that you spend time in this module ensuring that the team is well acquainted with the particular tools or questionnaires that you will be using. Learning Tasks should include a role play of the interview process (with trainees completing the questionnaires during the role play), followed by a relevant discussion.

We have also found that including a sample of other related and relevant questionnaires outside of those chosen for your study, is a valuable way of discussing their relative strengths, weaknesses and differences.

For example, a comparison of a recovery-oriented self-report questionnaire and a more medically oriented, clinician-rated questionnaire would provide an opportunity for the team to discuss and examine the relative values of each type.

Below is another example structure for this part of your module (although you might select different tools):
There are various types of questionnaires/ tools/ measures/ scales/ surveys:

1. Those that the expert clinician has to complete, rating the consumer.
2. Those that are self-report (the consumer completes it, rating themselves). Some of these have to be done by interview; others can be taken away and completed independently by the consumer.

Learning Task 1:
Have a look at the three tools we are discussing (HONOS, LSP and K10). These are the tools used to assess adults with a mental illness in NSW health services. For each tool, write your thoughts about the tool including who fills it out, what sort of information is sought and what your feelings are about its acceptability for consumers.

HONOS

a) Who rates it or fills it in?

b) What sort of information is it attempting to collect?

c) What are your personal feelings about its acceptability for consumers (would they find it okay, useful or offensive...) and why?

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Life Skills Profile (LSP)

a) Who rates it or fills it in?

b) What sort of information is it attempting to collect?

c) What are your personal feelings about its acceptability for consumers (would they find it okay, useful or offensive...) and why?

Kessler – 10 (K10)

a) Who rates it or fills it in?

b) What sort of information is it attempting to collect?

c) What are your personal feelings about its acceptability for consumers (would they find it okay, useful or offensive...) and why?
Learning Task 2: Self-report Scales

We are going to be using two self-report (the consumer answers the questions, not us) questionnaires or ‘scales’.

a) What could be some advantages of using a self-report scale?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

b) What could be some disadvantages?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

A discussion of the pros and cons of using an already developed and ‘tested’ tool verses developing one from scratch would also be of value in this module, particularly if the principles of Module 4 are revisited and applied.

The summary at the end of this module should be able to state that:

SUMMARY:
In this Module we have had the opportunity to get to know the specific questionnaire that we will be using in our study. We have practiced completing it and assisted others to complete it. We have also learnt about the differences between our questionnaire and some other questionnaires that we have not chosen to use.
REFERENCES AND FURTHER READING:

If your team feels they need to further develop their specific skills in this method of data collection there are many texts that you might select. The references below were used to develop Module 5 and we recommend reading them:


Module 6

Research Ethics and Confidentiality

(Ensuring that we do responsible research)
Module 6: Research Ethics and Confidentiality
(Ensuring that we do responsible research)

What we will learn during this session:
1. We will understand what “ethical” research means.
2. We will identify ways of ensuring that our research is conducted in a responsible way.

Learning Task 1:
1.1. Individually, first come up with some ideas about what the words “ethical” and “ethics” mean in relation to research.

Write down your thoughts:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

1.2. Now share your ideas with the whole group and ask a volunteer to write the group’s ideas on the board or on butcher’s paper.
Learning Task 2:

Reading: read individually, or a volunteer can read aloud.

In conducting research, researchers are expected to:

a) Respect the rights and dignity of the participants in the research project.

b) Avoid any harm to the participants.

c) Be honest and do the research with integrity.

All mental health researchers planning to conduct research must FIRST get approval from their Area Health Service Ethics Committee. If a researcher is connected with a university, a professional body, or another service outside the place where the research is carried out, approval must also be given by the Ethics Committees of these organisations.

Next, read an explanation on Ethics Committees on the next page:
Reading: read individually, or a volunteer can read aloud.

These are the main expectations of Ethics Committees:

1. No participant will be harmed (psychologically or physically) by being involved in the research.
2. Participants must voluntarily give their consent or agreement to be involved (in writing).
3. Participants can only agree to be involved after they are told:
   a) What they will have to do if they are involved.
   b) What the research is about.
   c) How their information and answers will be kept private and confidential.
   d) If there are any risks or benefits of being involved.
   e) That they are free to withdraw at any time.

BREAK 20 MINUTES

Learning Task 3:
The Trainer will now show us some examples of consent forms and information. With the whole group, look at the examples. See if you can find parts of the ethical requirements inside the forms, that are listed below in the left hand column.

Next, write down your ideas on how we can relate these same ethical practices to our own research project.
<table>
<thead>
<tr>
<th>Ethical practice</th>
<th>What would we say for our project?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Let participants know who the researchers are.</td>
<td></td>
</tr>
<tr>
<td>Let participants know what they will have to do if they volunteer to be involved and how much of their time it is likely to take.</td>
<td></td>
</tr>
<tr>
<td>Let participants know what the research is about.</td>
<td></td>
</tr>
</tbody>
</table>
| Let participants know:  
  - How their information and their answers will be kept private and confidential.  
  - Where the interviews will be conducted?  
  - Where the data will be kept? | |
| Let participants know if there are any risks or benefits of being involved. | |
| Let participants know that they are free to pull out of the study at any time. | |
| Get ‘informed consent’ in writing.  
  (Informed - means that they are aware of the information above before they agree to participate.) | |

Ideally you will be developing your actual participant information sheet as you do this activity.
a) What other things can we do to ensure that we respect the rights and dignity of the participants?

b) What other things can we do to ensure that as researchers we are honest and do not misrepresent the research results?

SUMMARY:
In this Module we were able to describe what the words “ethics” and “ethical” mean. We learnt about what can be expected of researchers in terms of ethical behaviour. We have also identified ways of ensuring that as researchers we conduct research in a responsible way.
Module 7

Managing the Research Process
Module 7: Managing the Research Process

What we will learn during this session:

1. We will describe what to do if something unexpected happens.
2. We will work out where to go if we need support and supervision.
3. We will identify the resources that we need to conduct successful research.

Learning Task 1:

In conducting research we may have started with a well laid out plan. However no matter how good our plans are, sometimes things happen unexpectedly and we may need to manage the consequences. For example, while most interviews will be simple and will run just how we expect them to, some might be tougher.

a) Can you think of reasons why an interview might be difficult?
   _____________________________________________________
   _____________________________________________________
   _____________________________________________________
   _____________________________________________________

b) What things might happen that could make you think that the information the participant is giving is not reliable?
   _____________________________________________________
   _____________________________________________________
   _____________________________________________________
   _____________________________________________________
   _____________________________________________________
Learning Task 2:

2.1. Can you think of some situations that might cause disruptions in our research plan? Write them under ‘Situation’ in the table below.

<table>
<thead>
<tr>
<th>Situation</th>
<th>What to do</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2. Together we need to develop an agreed way to manage each of these situations. Discuss the situations with the whole group and write some solutions in the table, under ‘What to do’.

Learning Task 3:

At times doing research is not that easy. When we are managing unexpected situations and we are not sure of what to do, it is important to plan a way to get some support or supervision. We may need help as an individual researcher and as a team of researchers.

In the next few pages we will think about some of the issues that may come up, and ways to get help and to give support to each other.
1. **Individual Support Plan:**

Individually – plan how, where, how often and from whom you will seek support. Think about what **resources** and **debriefing** you may need for the work that you will do as a researcher.

a) How? __________________________________________

                                             __________________________________________
                                             __________________________________________

b) Where? _________________________________________

                                             __________________________________________
                                             __________________________________________


c) When? __________________________________________

                                             __________________________________________
                                             __________________________________________


d) Who? ___________________________________________

                                             __________________________________________
                                             __________________________________________


e) Resources needed? ______________________________

                                             __________________________________________
                                             __________________________________________


f) Other resources needed? ________________________

                                             __________________________________________
                                             __________________________________________
2. Team Support Plan:

As a research team, discuss how, where, and how often you will get together for support and debriefing. When you have agreed on a plan, write it below.

a) How? __________________________________________
   __________________________________________
   __________________________________________

b) Where? _________________________________________
   __________________________________________
   __________________________________________

  c) When? _________________________________________
   __________________________________________
   __________________________________________

  d) Who? _________________________________________
   __________________________________________
   __________________________________________

  e) Resources needed? ______________________________
   __________________________________________
   __________________________________________

  f) Other resources needed? ________________________
   __________________________________________
   __________________________________________
Learning Task 4:
Think about our research project, and individually answer the following questions. When finished, discuss your answers with the whole group.

a) How much time will you put into it per day? Per working week?
___________________________________________________ 
___________________________________________________ 

b) Who will do what? Do all participants know what they are responsible for and what their tasks will be? ________________
___________________________________________________ 
___________________________________________________ 


c) Do you need further guidance in collecting data? Who will you ask?
___________________________________________________ 


d) Do you need help in finding literature from the library? How will you go about getting this help? ______________________
___________________________________________________ 
___________________________________________________ 


e) Do you need further help in understanding data analysis such as statistics? How will you go about getting this help? ____________
___________________________________________________ 
___________________________________________________ 

f) Do you have access to expert researchers? If not, how can you go about finding them? ______________________________ 
___________________________________________________ 
___________________________________________________ 

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SUMMARY:
In this module we have had the opportunity to discuss things that we might worry about. We have thought about some unexpected things that might happen. For all of these we have agreed on what we will do if they occur. We have also made a plan for our ongoing support and supervision during the research project. Finally we have identified any extra resources or skills we might need and where we will get these from.
Module 8

Making Sense of the Information Collected

(Methods of data analysis and synthesis)
Module 8: Making Sense of the Information Collected
(Methods of data analysis and synthesis)

What we will learn during this session:

1. Depending on which is relevant to our study, we will select Part A OR Part B.
2. We will learn to describe how information (numbers or words) that is collected, can be analysed and interpreted to answer our research question.

Choose one Topic:

There are different ways to analyse information to answer a research question. Two common methods include:

A. WORKING WITH NUMBERS
B. WORKING WITH WORDS

Note: This module includes two methods of analysing data.

Please note, we will only cover the method chosen as relevant to our own study. (This means our group will study Part A OR Part B.) The Trainer will explain why the research team has chosen this method.
Module 8

Part A

Working with Numbers
Learning Task 1: Five stages
‘Data’ basically means ‘information’. ‘Data analysis’ means making sense of the information that we have collected. Whether we are dealing with numbers or words, there are five stages of data analysis. These are:

a) Preparation: _______________________________________________________
   _______________________________________________________

b) Initial exploration: _________________________________________________
   _______________________________________________________

c) Analysis: _________________________________________________________
   _______________________________________________________

d) Representation and display: _________________________________________
   _______________________________________________________

e) Validation: _________________________________________________________
   _______________________________________________________

Talk with one or two others about what you think each of these stages is about. Be prepared to offer your ideas to the whole group. We’ll talk about each point in more detail later.

Learning Task 2: Preparation

Preparing data generally involves ‘coding’. Codes are the labels we put on data to show that they are similar or the same. By grouping data (information) together, we can see which choices are common and which are unusual. That way, we can understand our sample better. (Remember from Module 4, a ‘sample’ is a selected group representing a larger group.)
2.1. If your information is in numbers, it is most likely they come from questionnaires. When people circle numbers on a questionnaire, they are selecting the code that best represents their beliefs. Look at the example below based on a study collecting information about the oranges people bought or preferred.

<table>
<thead>
<tr>
<th>Not significant</th>
<th>Very Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6</td>
<td>5 6</td>
</tr>
<tr>
<td>Brand</td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6</td>
<td>5 6</td>
</tr>
</tbody>
</table>

a) Discuss with one or two others which code you would circle if colour were really important to you in choosing a product.

b) What if you did not care at all about colour? What if colour only mattered a little? Discuss these ideas in your small group.

Even though numbers from questionnaires are already coded, we still have to prepare the data so that we can learn about the group.

c) What do you think we will do to prepare data like those above so that we can learn something about the whole group of people who filled out the questionnaire? ____________________________
____________________________________________________

2.2. Some questions on questionnaires are answered with words rather than by circling a number. Those answers also need to be given a number value, or ‘coded’.

To code words, you group them into categories and then label each category. The label is the code. For example, if you asked people to name their favourite pastime, you might group tennis, baseball and cricket together and code the category as ‘sports’. You could group together painting, knitting and woodworking and code it as ‘craft’.
1. Together with one or two other people, group the following list of personal characteristics into two categories. Name the categories. Be prepared to share the names of the categories.

♦ Skinny
♦ Happy
♦ Tall
♦ Long hair
♦ Angry
♦ Calm
♦ Muscular
♦ Depressed
♦ Female

a) Category 1 (choose a list from the above): ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

b) Name of category 1 (give your new list a title): ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

c) Category 2 (choose a list from the above): ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

d) Name of category 2 (give your new list a title): ________________________________________________________________
   ________________________________________________________________
We code words to make them easier to understand. Do you remember our research on oranges in Module 2, Learning task 2.3?

### Research Question:

What are the characteristics of people who buy oranges?

Say our research question is as above. We would observe who bought oranges and how many they bought, and then write it down.

2. Our data from that research might look like this:

Person 1 male bought 5 oranges; Person 2 female bought 3 oranges; Person 3 female bought 6; Person 4 male bought 8; Person 5 female bought 12; Person 6 female bought 10; Person 7 male bought 13; Person 8 male bought 6; Person 9 female bought 4; Person 10 male bought 15; Person 11 female bought 3; Person 12 female bought 1; Person 13 and 14, both males, did not buy any oranges.

2.3. This information is an accurate description of who bought oranges. However, it is not easy to understand.

a) What if we want to know how many males bought oranges? Can you easily see that information? __________________________________________________________________________

2.4. One way to organise the data so that it is easy to understand is to construct a table. This is called a table of frequencies or counts. We've begun a table below.

a) Fill in the rest of the table using the information on oranges above.
b) What will you label the last two columns? Write your answers in the table below.

<table>
<thead>
<tr>
<th>Person #</th>
<th>Male</th>
<th>___________</th>
<th>___________</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
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<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Now it is much easier to see that 5 males bought oranges!

Learning Task 3: Exploring what the data might mean

3.1. ‘Exploring the data’ means looking for obvious trends that will help us to analyse the data more thoroughly later on.

One way to look at trends is to look at the percentages of people who did a particular thing or answered in a particular way. Percentages are more meaningful than simply counting. Percentages take into account the total number of people as well as the total number who did a particular thing. For example, if someone told you that 200 men wore pink shirts, you might think that pink was the “in” colour. However, if you knew that 200 men out of 20,000 wore pink shirts, you would have a whole different picture. That would be only 1%! 
1. From the example in the table above: What percentage of the total number of people who bought oranges were:
   a) Males? _________________________________________
   b) Females? _______________________________________

2. Of the total number of oranges, how many were bought by:
   a) Males? _________________________________________
   b) Females? _______________________________________

Be ready to show the whole group where you found the data in the table.

BREAK 20 MINUTES

Learning Task 4: Analysis of the data using statistics

4.1. What is Statistics?

Statistics is a way of analysing numbers to answer a research question. Statistics can be used to show relationships between things and also to show differences. There are many types of statistical tests for analysing information. Very often, researchers talk to statisticians to decide which test to use.

Next we will learn about some basic types of statistics.
4.2. Statistic 1: The Average

Reading: read individually, or a volunteer can read aloud.
Calculating an **average** is one of the most commonly used statistical tests. There is more than one kind of average. The most common one is called the **mean**. We will focus on it.

a) Go back to the table on oranges. Suppose we want to know the average number of oranges bought by the shoppers. Calculating a ‘mean’ will give us that answer.

b) To calculate the mean number of oranges bought by each shopper, we will follow these steps:

To calculate the Mean:
1) Count all the oranges sold.
2) Count how many people bought oranges.
3) Divide the total number of oranges by the total number of people.

c) With another person, work out the mean number of oranges bought by each shopper.

4.3. Statistic 2: The Range

Reading: read individually, or a volunteer can read aloud.
As well as knowing the average, we often want to know about the way the data spreads. The **range** is the easiest way to look at the spread of the data. It is simply the distance between the lowest score and the highest score.
Here is an example. To find the range in the data below:

Set of scores: 3, 4, 6, 6, 7, 8, 9, 10, 12

First find the **lowest score**: 3
Then find the **highest score**: 12

So, the range is from 3 to 12.
This is expressed as: **Range = 3-12**.

When we know the range it makes the average more meaningful. An average of 100 means something very different if the range is 1-1000, than it means if the range is 95-105.

a) Working with one or two others, look at the table and find the range of the number of oranges bought. When you’re ready, share what you find with the group.

**4.4. Statistic 3: Standard Deviation**

`Reading: read individually, or a volunteer can read aloud.`

Another common statistic is the **standard deviation**. A standard deviation tells us how far something or someone is from the mean (average) of the sample. When standard deviations are very large, we know there are big differences between people or observations. When the standard deviation is small, there is much less difference between them.

For example, with our research on oranges, if the standard deviation is big, we know that some people bought a lot of oranges but some bought very few. If the standard deviation is small, then it means that most people bought a similar number of oranges.
a) Look at the table of oranges again. Do you think the standard deviation will be big or small?

___________________________________________________

___________________________________________________

4.5. Statistic 4: Looking for relationships and differences in data

Reading: read individually, or a volunteer can read aloud.

Statistics can give us information about relationships between two or more sets of data. For example, statistics can show us whether there is a relationship between being male or female, and the number of oranges people bought. The most common statistic that tells us about relationships is called a **correlation**. The smallest correlation has a value of 0; the largest correlation is 1. Calculating a correlation is beyond this learning task. Usually researchers use a computer to do that. However, we can look again at the data to see if it looks like there is a correlation between gender and buying oranges.

a) With one or two others, look to see if you think the correlation between being male and buying oranges will be big or small. How about the correlation between being female and buying oranges?

___________________________________________________

___________________________________________________

Statistics can also show whether there is a difference between two sets of data; for example whether there is a difference between males and females in the number of oranges bought. The most common statistical test for finding differences between groups is called a ‘**t-test**’. Calculating t-tests is also usually done with a computer.
b) Have a look at your data. See if you think there will be differences between males and females and the number of oranges that they bought.

Knowing the number associated with a correlation or a t-test is only one step. We also need to know whether the finding was just by chance – a fluke. Researchers tell that by looking at another statistic that tells them the probability (likelihood) that their finding was by chance. That statistic is called a ‘p statistic’. Researchers want p values to be very small because they want there to be little chance that a finding is a fluke.

Most of the time the research team will consult an expert statistician to decide which statistical test to use and how to interpret the results.

Learning Task 5: Showing the data

5.1. Displaying data using tables, charts and figures

Reading: read individually, or a volunteer can read aloud.

Numbers are very commonly displayed with tables, charts and figures. We already had a go at constructing a Table in Learning Task 2.4 and in Learning Task 3.

Charts and graphs are useful ways to show patterns in the data including how the data are spread out or distributed.

Below is an example of a bar chart. It compares the number of owners who have cats versus those that have dogs.
a) Have a look at the chart below.

Where do you think these owners might live? Why?


5.2. Look at the table about who bought oranges a few pages back. Now, in pairs, draw a bar chart using the data in that table. Your bar chart should compare the number of males and the number of females who bought oranges. You can use the space below to draw it. When you have finished, show your bar chart to the whole group.
5.3. Another way of showing the shape of data is with a histogram. They are a special kind of bar chart. Individual bars are grouped together. Below is an example of a histogram.

![Example Histogram](image)

5.4. Use your bar chart about who bought oranges.

a) Work with another person to group the bars together to form a histogram. You can use the space below. Your histogram should show how many people there were and who bought each number of oranges. When you have finished, show your histogram to the whole group.
b) Do you prefer bar charts or histograms for showing the data about the oranges?

____________________________________________________

____________________________________________________

c) Why? _____________________________________________

____________________________________________________

In addition to bar charts and histograms, there are many other kinds of charts. The kind of data that you are showing people determines the best type of chart to use.

5.5. The Bell Curve

Reading: read individually, or a volunteer can read aloud.

When data are expressed in histograms, they take on a shape. If you have enough data, the shape often looks like a bell because the most observations are in the middle. The number of observations tapers on either side of the ‘mean’ until it is almost zero. This shape is called a ‘bell curve’. The bell curve reflects the ‘normal distribution’, which simply means that it is a common distribution. You could also think of it as a ‘usual’ or ‘common’ distribution. There’s a picture of a bell curve below.
Reading: read individually, or a volunteer can read aloud.

Not all data fit the normal distribution. Sometimes the curve is very pointy and sometimes it is flat. Sometimes it is ‘skewed’ so that lots of people are on one end and hardly any are at the other end. The important thing is to look at the shape of the curve to see what it tells you about your data.

Learning Task 6: Validation of the data

Reading: read individually, or a volunteer can read aloud.

An important part of analysing and presenting (showing) data includes checking to be sure that no mistakes have been made. Then the conclusions you can draw are thought of as ‘valid’.
The analysis of data in numbers should include:

a) Checking that data have been recorded correctly.

b) Checking the data are appropriate for the purposes of the research.

c) Making sure that explanations or interpretations that you take from the analysis are appropriate.

We covered all of these points on reliability and validity in Module 4.

**SUMMARY:**

We have learnt about the five stages for analysing numerical data:

- Data preparation.
- Initial exploration of the data.
- Analysis of the data.
- Validation of the data.
- Representation and display of the data.

We can each go back to any of these stages at any time to refresh our memories.

**REFERENCES AND FURTHER READING:**

If your team feels they need to further develop their specific skills in this method of data analysis there are many texts that you might select. The references below were used to develop Module 8 and we recommend reading them:


Module 8

Part B

Working with Words
PART B: WORKING WITH WORDS

Learning Task 1: Five stages

‘Data’ basically means ‘information’. ‘Data analysis’ means making sense of the information that we have collected. Whether we are dealing with numbers or words, there are five stages of data analysis. These are:

a) Preparation: __________________________________________
   _______________________________________________________

b) Initial exploration: _____________________________________
   _______________________________________________________

c) Analysis: _____________________________________________
   _______________________________________________________

d) Representation and display: ______________________________
   _______________________________________________________

e) Validation: ____________________________________________
   _______________________________________________________

Talk with one or two others about what you think each of these stages is about. Be prepared to offer your ideas to the whole group. We’ll talk about each in more detail later.

Learning Task 2: Introductory reading

In Module 5 we looked at various ways of collecting information. ‘Qualitative data’ are the descriptions and stories we usually collect in interviews and focus groups. We also get them from open-ended questions in questionnaires.
When researchers do qualitative research, they write ‘field notes’ at the
same time or straight afterward. Field notes contain information that does
not appear in the data. They might include the researchers’ observations
or feelings about what happened. They may also note down things that
were said after an interview was completed.

Imagine just how much data we get when we do qualitative research!

How do we organise and make sense of all the data? As with quantitative
data, researchers try to find categories and patterns in the data. They also
often look for relationships and themes among the categories.

**Learning Task 3: Data preparation**

3.1.

Reading: read individually, or a volunteer can read aloud.

When we conduct interviews, we often audiotape them. The recording of the interview must then be **transcribed** (written down) so that it can be analysed by the researchers. To transcribe something, we listen to the tape and type the interview into a computer at the same time. Once the interview is transcribed, the data is analysed either by hand or by using computer software. Researchers then look for patterns and themes in the data.

3.2. Transcribing can be difficult.

a) Listen to a song that you don’t know very well. While listening, individually transcribe (write down) the words of the song.
b) How did you go? Were you able to write down all the words of the song the first time? _______________________________

c) Did you feel that you wanted to replay the song again so you could try to write all the words correctly? ___________________

Researchers who are transcribing long interviews use special machines that allow them to slow down the speech or replay the interviews as often as they need.

**Learning Task 4: Initial exploration of the data**

Reading: read individually, or a volunteer can read aloud.  
After the data have been transcribed (prepared), our next task is to become thoroughly familiar with the data. This involves **reading and re-reading the text and field notes**. While reading the text, it is also important for us to:

a) Look for obvious themes.

b) Raise questions about the data.

c) Take good notes so as not to forget.

d) Think about whether any events or circumstances might have influenced what was said in the interview or the focus groups.
Learning Task 5: Analysis of the data

Reading: read individually, or a volunteer can read aloud.
There are four ways to analyse and interpret qualitative data. However, the four do not necessarily follow on from each other. The process is ‘iterative’. This means that as the researchers get new data, questions will come up, and themes emerge. They might choose to go back to various steps or try something different. Researchers may decide they do not like what they did at a previous stage. They may even take it apart and start all over again. Generally, researchers work as teams in this process.

The first process for analysing qualitative data involves grouping the data together and labelling it in meaningful ways. This process is called ‘coding’.

5.1. Steps in qualitative analysis: Coding

Now we will look at an example of coding. Read the material that the Trainer gives you, and pay attention to the codes written on it.

a) With one or two others, discuss the coding. Can you see how the researcher developed these codes?

__________________________
__________________________
__________________________
__________________________

NB You need to select and prepare a pre-coded piece of transcript to use as an example with the group for this task.
5.2. Processes in qualitative analysis: Grouping the codes into categories

Using the data that the Trainer gave us, we will work with one or two other people to group some codes together.

a) What will we call our new category? ___________________________________________________
   ___________________________________________________
   ___________________________________________________

5.3. Processes in qualitative analysis: Identifying themes and relationships among the codes and categories.

When we analyse qualitative data we continue to combine and name categories until we can’t see any more logical combinations. The groupings that are left are often called ‘themes’. Researchers name the themes to reflect all the categories together within them.
5.4. Processes in qualitative analysis: Develop concepts and make generalised statements.

Reading: read individually, or a volunteer can read aloud.

For this step we must decide on some conclusions based on the themes that we found in the data. This step involves researchers asking themselves: “If these themes are true, then what can I conclude?”

Learning Task 6: Representation and display of the data

Reading: read individually, or a volunteer can read aloud.

Qualitative data are represented in the following ways:

a) By describing in words, the interpretation of findings.

b) By using quotes and pictures to illustrate points.

c) By using visual models, diagrams, figures and tables.

Learning Task 7: Validation of the data

7.1.

Reading: read individually, or a volunteer can read aloud.

It is important that we have as much evidence as possible that shows our conclusions are valid (true). There are many ways to validate conclusions. Next we will look at three common ones:

a) Triangulation.

b) Member checking.

c) Looking for alternative explanations.
7.2. Triangulation

Reading: read individually, or a volunteer can read aloud.

Imagine a triangle. It has three different points and three different lines that join to make the triangle’s single, solid shape. In the same way, ‘Triangulation’ involves finding several different types of sources to support our conclusions. For example, recall the research on oranges. Say we want to triangulate our research methods so we can see if they each lead to similar conclusions. We could choose to interview shoppers or we could ask them to complete questionnaires as well as observing how people shop at the fruit shop.

Triangulation also involves asking different researchers to code the same data to see if they come up with similar categories and codes. Overall, the aim of triangulation is to get a better understanding of the topic from various points of view.

7.3. Member checking

Reading: read individually, or a volunteer can read aloud.

Member checking involves us returning to talk to the research participants. We can show the participants the data and findings to allow them to check on the accuracy of the data. The participants can then help us by confirming our understanding or interpretation of their views and experiences.
7.4. Looking for alternative explanations for our findings

Alternative explanations for our findings need to be explored to enhance their credibility. This means looking actively for other theories that might also explain what we have observed or found. This way we can see how our conclusion stands up when compared with other explanations.

SUMMARY:

In this Module we have worked with the five stages of data analysis for qualitative data. These stages include:

- Data preparation.
- Initial exploration of the data.
- Analysis of the data.
- Validation of the data.
- Representation and display of the data.

We can each go back to any of these stages at any time to refresh our memories.

REFERENCES AND FURTHER READING:

If your team feels they need to further develop their specific skills in this method of data analysis there are many texts that you might select. The references below were used to develop Module 8 and we recommend reading them:


Module 9

Making a Good Presentation
Module 9: Making a Good Presentation

Demystifying Research

What we will learn during this session:

1. We will identify various ways of presenting the findings of our research.
2. We will create a structure for delivering a coherent presentation.

Learning Task 1: Ways of presenting research findings

Let’s brainstorm some ways of presenting our research. Fill in the table below. First, think of some more ways to present the research. Next to each way of presenting, state the audience and its purpose.

<table>
<thead>
<tr>
<th>Ways of Presenting</th>
<th>Audience</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference presentation</td>
<td>Consumers and professionals interested in recovery</td>
<td>Present the findings from your research…</td>
</tr>
</tbody>
</table>

In the following tasks we will focus on presentations, including those at conferences.
Learning Task 2: Presenting at conferences and in other meetings

2.1. What makes a good presentation?

1. We have probably all made presentations ourselves or have heard enough presentations to know what makes a good presentation. Working as a small group, make a list of some of the qualities of a good presentation.

a) ________________________________________________

b) ________________________________________________

c) ________________________________________________

d) ________________________________________________

2. Now think about times when you heard really bad presentations. What made them bad?

a) ________________________________________________

b) ________________________________________________

c) ________________________________________________

d) ________________________________________________

3. Share and discuss your ideas for 1 and 2 with the whole group.

2.2. Let’s comment on some PowerPoint slides that are meant to be shown to support a presentation.

♦ Is the font for the words easy to read?

♦ Does the slide use words sparingly for ease of reading and emphasis?

Provide examples of a range of PowerPoint presentations. You might provide them as handouts, as downloadable files, or show them onscreen during the session.
2.3. Working with one or two others, develop the **structure** for a five minute presentation on a topic that interests your small group. Consider all of these points:

- Where will the presentation be given?
- Who is your audience?
- What one thing do you most want them to learn (what is the goal)?
- What information do they need or what should they do in order to meet the goal?
- How will you give them that information?
- How will you keep to time?

2.4. Create three or four PowerPoint slides to support your presentation. Ask yourself all the questions you asked above.

- Is the font for the words easy to read?
- Does the slide use a good amount of words (not too many), for comfortable and easy reading and to emphasise the main points?
2.5. Delivering a good presentation

Let’s brainstorm some important points to remember when delivering a good presentation. For example, people often suggest that appearance is important (the clothes you wear, your cleanliness, etc.) What are some other things that you consider important when delivering a presentation?

a) _____________________________________________________
   _______________________________________________________

b) _____________________________________________________
   _______________________________________________________

c) _____________________________________________________
   _______________________________________________________

d) _____________________________________________________
   _______________________________________________________

2.6. Giving your presentation.

Three or four people can volunteer to give their presentations, (or the Trainer can pull names out of a hat). The rest of the group will listen and offer feedback at the end.
MODULE 9: SUMMARY:

In this Module we have developed our presentation skills. We have discussed what makes a ‘good’ presentation. We have also developed a presentation and delivered it to the group.
Module 10

What Comes Next?
You’ve completed the Training Course. Congratulations!

We have now completed our ‘Demystifying Research’ course. We are about to begin using what we have learnt to launch forwards into our research study!

Together, before we celebrate, let’s read the following:

Reading: read individually, or a volunteer can read aloud.

There has been a growing expectation and acceptance that consumers should be more actively and more genuinely involved in mental health research. In many areas of health research, consumer involvement is regarded as a necessary component of good practice. The once ‘secret domain’ of the researcher or clinical expert should become one that engages and genuinely collaborates with the consumer. To really share and conduct research together with consumer researchers, academic researchers need to share the knowledge of research! Without sharing the language and steps involved in research with our consumer researchers, their participation will remain token. Congratulations to you all for taking the first step of ensuring that your research project will be one that empowers, engages and truly collaborates with everyone within the team!
SUMMARY:

Whilst there is always more to learn, and learning never ends for any of us, together we have learnt enough to start our research journey as a team, with shared knowledge and shared understanding.

Time to celebrate!