



# CONNECTING CLASSROOMS

## through Global Learning

CCGL PRACTITIONER RESEARCH FUND:

GUIDE TO CARRYING OUT A SCHOOL-  
BASED RESEARCH STUDY<sup>1</sup>

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### Introduction

This handbook is intended as a support document for educators interested in taking part in the CCGL Practitioner Research Fund. It aims to provide applicants and participants with guidance on the key steps in designing and conducting a small-scale research study and writing a research report.

If you have not previously carried out any research, we advise that you review the handbook before starting. It is set out in a number of sections, each of which is designed to support your work at a key stage of the process – from writing your application to actually designing and carrying out your research and then writing it up. Each section contains an introduction to key issues, as well as some suggested readings and self-guided activities. All of these are intended to help develop your study – including guidance on developing good research questions, choosing a methodological approach and research methods, and making sure to consider any ethical issues that might arise.

For further information on the Research Fund read the **CCGL Research Fund and FAQ**.

To apply go to the **Application Form**.



# 1 STARTING OUT IN RESEARCH: DESIGNING A RESEARCH STUDY

## 1.1 Thinking about research

Before beginning research it is very useful to have an understanding of the overall research process. This commonly begins with a problem or topic that the researcher wants to explore, proceeds through data collection and analysis, and ends with a written report.

Quantitative studies (those that use numbers to explain the social world) and qualitative studies (those that build on the qualities or characteristics of accounts of the social world) are both of value. While some studies use only one type of approach, others seek to combine the two. This might be done through an initial qualitative phase of work to explore key issues and then using a survey to identify broad patterns of a phenomena. Or a study could start off with a quantitative survey to identify broad patterns of a phenomenon and then move onto a more in-depth qualitative exploration.

While there may be differences between one study and another with regard to how it is conducted, there are some important common characteristics that are relevant to how *all* research is done:

- *Systematically* – so that those reading your research can understand how you conducted your study and arrived at your findings
- *Sceptically* – so that you are open to alternative explanations of your findings
- *Ethically* – so that you can show how you have safeguarded those involved in the research (ensuring that no embarrassment or harm comes to research participants or, indeed, to yourself)

There are therefore certain things you need to consider when planning a research project. These will be briefly outlined in the following sections and you will find links to further helpful readings and resources at the end.

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### Self-guided Activity 1: Getting started

To get started, we suggest that you give some thought to the topic you are considering researching and think about/ write down the answers to the questions below. If you cannot answer them all now, that's fine, but try to come back to them again after you have worked through other parts of this guide:

- What is the topic under investigation, and what are your aims and objectives?
- Why is this research important?
- What are the specific questions you are trying to answer in relation to this topic?
- What methods will you employ to answer those questions (e.g. interviews, observations, surveys, etc.)?
- When and where will you be undertaking the investigation?
- How will your project progress, stage by stage, from start to finish?

## 1.2 Identifying a research topic/ aim

The Practitioner Research Fund aims to support educators in schools in the UK who are interested in exploring an area of their practice related to Connecting Classrooms for Global Learning. Your chosen topic may be of particular interest to your own school, but should also be of interest to other schools and educators involved in global learning. While the choice of topic is up to you, below are a few suggestions of relevant themes:

- Explore the impact of global learning or a school partnership on pupils' learning;
- Look at the relationship between global learning and school partnerships
- Look at the relationship between global learning/ school partnerships in a particular subject area or topic;
- A study on global learning and/ or school partnerships in a special school;
- Look at how global learning can support pupils literacy and numeracy;
- Explore how IT can be used to support global learning;
- Investigate in-house CPD and its impacts on teachers;
- Look at global learning/ school partnerships in different schooling contexts/ geographical areas;
- Explore the journey of teachers engaged in global learning/ school partnerships;
- Explore school partnerships from the perspectives of Southern partners.



## 1.3 Developing a rationale

Once you have a sense of the topic you would like to explore in your study, you also need to have a clear rationale for your research. In other words, why might your study be of interest to others involved in education? This might include a range of people, including teachers and SLT members in your own school and other schools, curriculum designers and/ or policy makers.

Having a clear rationale is key for any research project because it helps to ensure that the work will have an audience, and it can also potentially increase its impact. If you know of a topic or issue that has been discussed in your own school a lot recently, for example, then it is likely to have a receptive audience there!

It is also important to have a sense of the research that has already been conducted related to your topic (see section below on how to find research literature). This will prevent you from duplicating work that has already been done and enable you to show how your own work is new and exciting, and making a contribution to discussions in education.

### Self-guided Activity 2: Developing a rationale

To help you develop your rationale for the research, we suggest that you try to respond to the following questions about your proposed research topic:

- Why does this topic interest you personally?
- Why would this research be useful within your school?
- Why would this research be important to a wider audience and who in particular would it be relevant to?
- What do we already know about this topic (i.e. what has been explored in the existing literature)?
- Are there particular gaps in the literature that this study explores?

## 1.4 Finding academic literature

It is expected that you will have a good sense of what research has been conducted on your topic before you begin, and you will also need to refer to some relevant academic literature in your final report. This is easier to find if you have access to a university library (or possibly a local library in some instances), however, if this is not the case there are still lots of ways to access literature. There are a number of ways that you can start your literature search:

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- Look at research papers on the [UCL IOE Development Education Research Centre](#) web pages. Practitioner research papers from the Global Learning Programme may be of particular interest (see section 7.2).
- You can use Google Scholar to search for materials available online. However, be aware that anyone can upload materials onto Google Scholar and you need to be aware of quality control.
- Start with a key text written by a key thinker in the field, and follow up the sources and ideas, by reading the texts that they cite.
- Search library catalogues for relevant books and e-resources. You may find searching for key authors can be helpful.
- The British Education Index (<http://www.leeds.ac.uk/educol>) provides access to a free collection of educational research published in the UK. Similarly, the Educational Resources Information Center (ERIC) (<http://www.eric.ed.gov/ERICWebPortal/Home.portal>) is a huge resource for US and international education research. ERIC will provide you with the title, author information, year of publication, etc. as well as an article abstract. Where available, they will also provide direct links to electronic copies of articles.
- You can find copies of UK theses through the British Library's new EThoS (Electronic Theses Online Service; <http://ethos.bl.uk/Home.do>) which provides free access to electronic copies of many doctoral theses completed at universities throughout the UK.
- Search uploaded papers on [Academia.edu](#) and [ResearchGate](#) – for example, searching using terms such as global learning or school partnerships. Note that academic researchers often post pre-publication versions of journal articles and reports on these sites, so you can access these more easily than the published versions accessible only through a university library.

## 1.5 Creating good research questions

Good research questions are key to any research project. The focus of the study revolves around the questions you ask, so getting these right is a very important part of the process. It is therefore worth spending some time refining these at the very beginning of the process, before you get heavily involved in the project.

So you may ask: *What is a research question?*

A research question is a question that you do not yet know the answer to. It is what you want to find out.

Look at the following examples:

- What do secondary geography teachers understand about 'global learning'?
- How do they apply their understanding in their approach to their teaching?



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These are questions which require researching, such as talking to and observing teachers to find out what their views are, and you cannot predict the answers. Notice that they are also quite focused and clear in terms of (i) what they intend to find out and (ii) whose perspectives are of interest.

Research studies for the Practitioner Research Fund should have somewhere between 2 - 4 research questions. They should be related and together provide a full picture of what it is that you want to find out. The following list provides some ideas about what good research questions look like:

### What makes good research questions?

Good research questions....

- are real questions that do not pre-determine the answers
- are genuinely exploratory (they allow for unexpected answers)
- are specific
- are worded in a positive way
- relate to each other (can have main and sub-questions)
- are based on understanding of existing literature
- are grammatically accurate and concise
- are realistic for the time and resources available to do the research
- have not already been answered elsewhere
- are possible to answer through research

You may also find it helpful to look at examples of practitioner research projects which were conducted for the Global Learning Programme to see the types of research questions they used (see section 7.2).

Also keep in mind that good research questions **do not**:

- Require yes/ no answers. Research questions should be exploratory and seek to understand something new. This means that simply asking whether something is happening or not is not very helpful. For instance, asking: do teachers apply global learning in their practice? (a yes/ no question) is not as helpful as asking: in what ways do teachers apply global learning in their practice?
- Ask the same things in different ways. For instance, if you have one question which asks what teachers' views are on a topic, then your other question(s) should ask about something else, such as how this links to policy or to views of others or why teachers have these particular views on the topic. In other words, research questions should be related to one another, but not repetitive.

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- Ask the same ‘type’ of question. For instance, don’t ask all ‘what’ questions, but consider how you might vary this by adding a ‘why’ or a ‘how’ question.

### Self-guided Activity 3: Developing your research questions

Try to develop some research questions for your topic. For this activity you can think of as many as 5. Try to identify what it is that you really want to ask.

Once you have tried to come up with a few possible questions, look at them in relationship to the lists above and use it to evaluate whether you have created good questions or not. For example, look to see whether you have genuine questions, whether your questions just have yes/ no answers, etc. Re-draft your research questions as needed.

## 1.6 Thinking about your research design

Now that you have some ideas about the questions you want to ask in your research, this next thing to consider is how you can go about exploring them. There are a few key things to consider in designing a research study, each of which is explored in the sections below. These include:

- Identifying a place to conduct the research
- Choosing your overall research approach
- Choosing your research methods
- Considering research ethics

## 1.7 Identifying a place to conduct the research

For most practitioner-researchers, the site of the research will be their own school or working environment. Conducting research in a place that you are already familiar with can have many benefits, including having existing knowledge of a place and people, providing good access to participants, and making it relatively easy to get permission to conduct research. Depending on the research questions you are interested in exploring, however, you may also consider working with/ in other locations as well – for instance, a CCGL partner school, another school in your city, etc. Be careful not to make your study too big though!

In all cases, you will need to make sure that the site you choose is easily accessible to you, that it can help you to address your research questions (e.g. because the people have the relevant knowledge and experiences to talk to you about your topic),



and that you will be able to gain permission to conduct research there. It is therefore a good idea to start talking to relevant contacts – e.g. Head teachers, Heads of Departments, and/ or individual teachers – as soon as possible to ensure that they are happy to support your proposed research project or to see if they have ideas about research that would be useful to the school.

## 1.8 Choosing your overall research approach

Having identified your research questions and where you will conduct the research, you will also need to consider how you will approach your research – this is often referred to as a methodology. A **methodology/ methodological approach** can be described as the overall theoretical approach to the issue being studied (see readings at the end of this section for further information). You may be more familiar with this term if you have previously studied to Masters level, but do not be put off if you haven't!

Most Practitioner Research Fund studies will be **empirical, which means a study involving the collection of new data**, although literature-based studies may also be considered.

The first thing to consider is what kind of approach you think fits best with your research interests – e.g. qualitative? quantitative? a mixture of the two? How will this kind of approach help you address your research questions?

As you are considering this, it will also be helpful to think about the following practical questions:

- What kinds of data collection methods will I use?
- How will I collect the data (e.g. digital recording, observation schedules, notes, etc.)?
- How many respondents (people) will I speak to/ observe, etc.?
- How long will I spend collecting data?
- How will I get permission to collect data and from whom?
- How will I store the data?
- Will I transcribe interviews or other recorded data (e.g. observation videos)?
- How will I protect the confidentiality of people who speak to me?
- How much time do I have and what can I realistically do in that time?



### Self-guided Activity 4: Methodological approach

Now have a go with your own research questions. Think about all the questions listed above and come up with suggested methodological approaches that might help answer them. *Note: You may want to write these down for future reference, as they will help you in filling out the application form.*

## 1.9 Choosing your research methods

A data collection method is the specific way in which you collect data. There are a variety which can be used (further details about these are provided later in the Guide).

Examples include:

- Interview
- Focus group
- Questionnaire (including online survey)
- Observation
- Analysing documents
- Participatory activities

Note that some of these data collection methods can be used in different ways depending on what you want to find out. Questionnaires, for instance, can have closed questions (e.g. multiple choice) which gather quantitative information for surveys, or they can have open questions (e.g. fill in the blank) which generate more qualitative data. These can be done on paper or online using free software, some of which will also do basic quantitative analysis for you.

Interviews can be structured (e.g. identical questions are used in each interview), unstructured (e.g. no pre-set questions, but a series of topics to be covered), semi-structured (e.g. a few pre-set questions or topics, but flexibility to explore other topics that may arise), each of which will gather different types of data. Observations can also be highly structured (for example noting what happens every 3 minutes in a lesson being observed) or can be more flexible and open.

It is also worth noting that within a global learning context the use of participatory methods and activities is particularly useful, as they are designed to allow maximum participation by different people and are good at highlighting multiple perspectives. These might include using photos or videos to stimulate a discussion, asking participants to rank a series of statements or concepts, or asking them to draw or create something which they can discuss with you. If you use these approaches you

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should also consider how you will collect the data e.g. are you interested in the outcome of the chosen activity or the discussion which happens during it, or both.

Whatever methods you choose for your research, the important thing to remember is that your data collection methods must link to your research questions.

If, for example, you want to find out how many teachers in schools in your city are including certain global learning topics within their practice, then it would make sense to use a multiple choice questionnaire which asks them about this. If, on the other hand, you are interested in what teachers think about practices of global learning (either their own or others), then it would be more sensible to use methods that allow you to have a conversation with your participants – e.g. interviews or focus groups – in order to hear their views.

Taking this a bit further, imagine that you are doing research around the 2 questions covered in the previous section:

- What do secondary geography teachers understand about 'global learning?'
- How do they apply their understanding in their approach to their teaching?

To explore these, you could decide to do a number of things to collect data, including:

- interview teachers to find out what they think;
- set up an online survey and ask teachers to respond to a set of questions;
- observe teachers in order to see whether what they say about their practice is what actually happens in the classroom;
- talk to the Head Teacher or Head of Department to find out what their perspective is;
- talk to students or look at students' work to find out how teachers deal with global learning;
- look at the school textbooks that are used and see how the teachers follow them.

This isn't to suggest that you do all of these things, as that would not be feasible in the time available, but to give you a sense of the range of ways that data can be collected and the different types of data that you will be able to gather as a result.

As you are thinking about your choice of methods, also consider how you will record the data. If you are observing anything (e.g. teaching sessions, CPD meetings, after school clubs, etc.) or doing interviews, for instance, you will likely want to record them for later transcription. This might include audio recordings (e.g. with a phone), depending on the data you are trying to capture.



### 1.10 Thinking about scale and feasibility

Another key consideration when beginning a research project is what is feasible given both the chosen topic and the time and resources available. For instance, if you are interested in conducting interviews or focus groups with students, you'll need to think about when you can do this (e.g. after school, during break times, at times that don't interrupt exam preparation or other learning) and whether there are enough students who might be able to help (e.g. they will need to have sufficient knowledge or experience related to the topic that you are interested in exploring).

You should also consider how much time you will need to review the existing literature and to do your own research. Keep in mind that this includes more than just the time needed to do the actual interviews, focus groups, etc. It also requires time to things set up (i.e. recruiting participants, ensuring informed consent, making practical arrangements for interviews/ observations/ focus groups), to analyse the data you collect, and then to write it up as a report.

As a rule of thumb, an hour-long interview can take 2-3 hours to fully transcribe and an hour or so to carefully read through several times for the purposes of analysis. Focus groups can take even longer because of the number of participants/ voices involved. This isn't to discourage you from doing lots of interviews or focus groups, but to encourage you to think about what is feasible given the time available to you!

Transcription software is also becoming much more available and easier to use, so it is worth looking into whether this is an option for you. Some examples include NVivo transcription and TEMI, which may require a small fee, but can save lots of time.

Also, while research projects can be fairly straightforward to conduct, they may not always follow a simple path, so it is also important to be flexible on this from the beginning. As you begin collecting data, for instance, you may find that you need to revise your original research questions. This is perfectly OK and a normal part of the research process.

### 1.11 Considering research ethics

A major consideration for any research is ensuring that the conduct of research and the dissemination of the results of research are both truthful and fair. The great majority of research involves human participants, and it is important to protect their interests and protect them from any potential risks associated with their participation in the research.

This includes:

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- Respecting the autonomy of individuals
- Ensuring that participants have provided informed consent
- Avoiding causing harm
- Protecting participants' privacy/ confidentiality/ anonymity
- Giving particular consideration to potentially vulnerable participants
- Maintaining and protecting data appropriately
- Considering the appropriate dissemination/ use of findings
- Treating people fairly
- Acting with integrity

### Professional codes of ethics

All researchers (including practitioner-researchers) are expected to abide by a Code of Ethics. These codes usually clearly set out researchers' responsibilities to research participants, to funders, to governments, and to fellow researchers/ their discipline. You will find it useful to review these codes before beginning your own research, in order to get an overview of how different disciplines approach these important issues.

We particularly recommend that all applicants to this Fund review the British Educational Research Association's (BERA) [Revised Ethical Guidelines for Educational Research](#) (2018) before completing their application.

### CCGL Ethics review process

In addition to making an individual commitment to conducting ethical research, **all participants are required to discuss ethical issues in their application/ proposal and have a clear strategy to respond to these.** This helps to ensure that the research conforms to ethical standards.

All participants should review the following documents before completing their application:

- British Educational Research Association's [Revised Ethical Guidelines for Educational Research](#) (2018) for general guidance on research ethics.
- Researchers in the UK are also required to abide by current Data Protection legislation in order to ensure that any personal or sensitive data is carefully stored and treated confidentially. It is likely that practitioners will already be very aware of this legislation through their work in schools, but if not, we recommend that you consult the ICO's helpful website [Introduction to Data Protection](#) before completing the application.

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- You should also review the [British Council's Research and Evaluation Ethics policy](#) (and especially the section 'British Council global research and evaluation principles', pg. 2). You will be asked on the application form to confirm that you have read this and that you will ensure that the following principles will be followed in your research:

|   |
|---|
| All data will be kept confidential and will be stored securely, in compliance with UK Data Protection Act 2018.   |
| Informed consent will be gained from all individuals before taking part in the research.  |
| Individuals taking part in the research will be have advised that they can withdraw from the research at any time and that they can request that any data collected will not be used. |
| All names (including school names) will be anonymized in any publications, materials or presentations based on the research.  |

### Self-guided Activity 5: Ethics and reporting of data

Once you have looked at the BERA Ethical guidelines (and perhaps done some reading on ethics, see suggested readings below), read the excerpts below which provide some examples of quotations given in interviews.

As you read, consider the following questions:

If you were told these comments in an interview situation what ethical issues would they raise?

How would you deal with these quotes as part of your research – e.g. would you choose to use them in your research study or not? Why? How would you ensure that the participants were protected against any potential harm?

**Example 1:** The following quote is from a Travel and Tourism student learning about sustainability and how to do responsible tourism which involves the local population rather than exploiting them. It was an exchange between two students - the first comment then prompted the second:

*J: I tried to interact with the locals in Jamaica but they just tried to sell me*





drugs

*C: They all do – they just take drug. But apart from that – yeah when I go away I try and talk to the...it all depends on where I go. Places like Gran Canaria and that – I wouldn't really go and chat to the locals cos they're all dirty and that but other places – yeah I would go chat to the locals and interact but some of them look scary you know – they could like mug you or anything cos at the end of the day – okay sustainable tourism but you've got to look after your own safety as well. Cos they say don't go off the beaten track but then sometimes you want to because you want to have a look but sometimes you get mugged.*

**Example 2:** The following is from an interview with an educator working for a conservation organisation in Costa Rica. It provides some insight into his perspective on conservation and education:

*'I don't agree with people who treat tropical forests like gardens to be protected and left alone without any human intervention. The garden approach just doesn't work here, there isn't enough land to just leave half of it sitting and to tell people that they can't use it to make a living. Environmental education programmes have to deal with the realities of a place... there is no point in trying to deny the links between humankind and the rest of the natural world.'*

## 1.12 Criteria for judging research

Finally, when designing your own research, it is important to understand how research is judged and what criteria are commonly used to determine if it is of good quality.

There are several sets of criteria by which research is judged. For example, during the process of data collection and analysis you might think about issues of:

- **Validity** – are the questions and data accurate, are the explanations of the data accurate?
- **Generalisability** – can the findings be generalised to a wider population sample?
- **Reliability** – are the methods used to collect data reliable so that findings can be replicated by another researcher?
- **Credibility** – is the account of the research credible to those involved and presented adequately?
- **Positionality** – openness about the views of the researcher and participants

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- **Voice** – the extent to which the text reflects multiple voices/ interpretations
- **Critical subjectivity** – evidence of self-reflection from researcher and participants

In order to ensure these criteria are met researchers use a range of techniques both in conducting and writing up their research:

- **Triangulation** – collecting data from a variety of sources using a number of methods and comparing/ contrasting the data
- Being **systematic** in collecting data and in analysing it – e.g. reading each interview many times for different themes or putting the same statistics through different types of analysis
- **Analysing during data collection** (and not just after it is all collected) to inform the process
- **Respondent validation** – asking those who participated in the research to review the findings and comment on them, before they are published.
- Providing detailed **description of the context** of research – this should give enough detail of the situation being researched so that other researchers can see how to replicate or transfer the research
- **Description of the methodology** and explanation for the decisions made during the research
- Discussion of the **ethical considerations** and actions taken.

### 1.13 Where can I go for more information?

Alderson, P. and Morrow, V. (2004) *Ethics, Social Research and Consulting with Children and Young People*. Barnardo's: Barkingside.

Agee, Jane (2009) 'Developing qualitative research questions: a reflective process' in *International Journal of Qualitative Studies in Education*, 22 (4): 431-448.

Bell, J. (2010) *Doing Your Research Project: A guide for first-time researchers in education and social science* (5th edition). Milton Keynes: Open University Press.

Bryman, A. (2012) *Social Research Methods*, 4th Edition. Oxford University Press.

Cohen, L., Manion, L. & K. Morrison (2011) *Research methods in education*. 7<sup>th</sup> Edition. London: Routledge.

Cresswell, J. (2009) 'The selection of research design', pp3-21 in *Research Design: qualitative, quantitative, and mixed method approaches*. London: Sage.

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Denzin, N.K. and Lincoln, Y.S. (eds) (2008) *The Sage Handbook of Qualitative Research*. London: Sage.

Robson, C. (2002) *Real World Research: A Resource for Social Scientists and Practitioner Researchers* (2nd edition). Oxford: Blackwell. [Includes a helpful section on ethical considerations.]

Thomas, G. (2009) 'The literature review', pp30-59 in *How to do your research project: a guide for students in education and applied social sciences*. London: Sage.



## 2 DESIGNING YOUR DATA COLLECTION TOOLS

This section provides more information on possible data collection tools.

### 2.1 Surveys and questionnaires

Surveys and questionnaires are widely used in social science research. In relation to research problems, they can be used to examine attitudes or to research behaviour. Although the answers to survey questions cannot provide as much in-depth information as other methods (e.g. observations or interviews), they are very useful for gathering information from larger groups of people.

#### 2.1.1 Pros and cons

Like any research method, surveys and questionnaires have pros and cons, some of which are listed below. As you read, you might like to consider which, if any, of these might apply specifically to your own planned research.

##### **Advantages:**

- Potential to collect answers from a very large number of people
- Cheap in terms of researcher's time (unlike interviews)
- Easy to arrange
- Researcher may not need to be present
- Possible to distribute them online
- Each respondent reads an identical question, so is not influenced by the researcher
- Relatively easy and straightforward analysis
- Basic analysis can be done with some online software packages

##### **Disadvantages:**

- The researcher can't be sure what happened, for example if the respondents had enough time to complete the questionnaire properly.
- Respondents cannot ask for clarification, unless the researcher is in the room with them
- Answers are often pre-set (e.g. multiple choice), and respondents are forced to choose one of these answers, rather than saying what they think individually

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- Pre-set questions can bias the findings towards the researcher's way of seeing things
- Response rates can be poor and the questionnaire not representative.

Perhaps the most important point to bear in mind is whether your research questions can be answered through gathering a large number of responses or not. Some questions can be answered either through questionnaires or interviews, for instance, but in the case of interviews you are going to be able to get a much more in-depth view of what a small number of people think. It is therefore worth thinking about what kinds of information you need to collect and how.

### **Stages in constructing a questionnaire**

Once you have decided that your research question and resources lend themselves to using a survey, there are two main stages to constructing your questionnaire.

These are:

1. Designing the layout, and
2. Populating it with questions.

In terms of the layout, it helps to start by thinking how long respondents are going to take to complete the final version. If you are approaching busy teachers, for example, and asking them to complete an online survey, it may be that anything taking over 20-30 minutes only gets a very limited response. If you are sitting with people as they answer it, with you recording their answers or watching them complete it during a timed session, it's likely they will feel obliged to spend longer on their answers.

In the case of online surveys in particular, it can be particularly helpful to give an indication of how long the answers are likely to take right at the beginning of the questionnaire, so the respondent can budget his or her time accordingly. Many researchers find this improves completions and response rates.

Online survey software such as SurveyMonkey will allow you create a survey with around 10 main questions for free. Another example is Google Forms (remember to send the correct non-editable version to participants), which is free to use and does some basic analysis. The key is to make sure the survey covers all the questions you need to ask so that you get good data. An ideal questionnaire will look neat and flow logically, and provide a variety of question types so respondents remain engaged and interested.

## 2.1.2 Types of questions

Some suggestions about the types of questions you might like to include in your own research are provided below:

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### Sampling information

It is very helpful to collect this type of information at the beginning of the questionnaire as it provides helpful background on your participants. Examples:

Which age group do you belong to?

- 24 or under
- 25-34
- 35-44
- 45-54
- 55-64
- 64+

How long have you been a teacher?

- 0-10 years
- 11-20 years
- 21-30 years
- 31+ years

Which qualifications do you hold?

- BA/BSc/BMus/BEd (without Qualified Teacher Status)
- BEd (with Qualified Teacher Status)
- PGCE
- MA/MSc/MMus
- MPhil
- PhD/EdD
- Other (please specify) .....

### Multiple choice questions

Your respondent needs to choose one or more answers from a list, depending on what you have chosen to specify. Example:

Which factors do you think impact on children's completion of homework? Tick as many answers as you think appropriate.

- Having a suitable working environment outside school
- Being able to manage their time properly
- Motivation

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- Parental support
- Tiredness
- Understanding the task
- Being able to contact friends to discuss the task
- Having access to a computer outside school
- Liking the teacher
- Disciplinary sanctions if homework is not completed
- Other (please explain) .....

### Rating scales

Your respondent needs to evaluate one or more items in terms of preference or importance. The Likert scale is an example of this. Such questions can be very useful, but researchers need to be aware there is often a psychological tendency for respondents to answer using the middle of the scale. Example:

On a scale of 1-5, with 1 being excellent and 5 being poor, how would you rate the following aspects of teacher careers?

|                             | 1                        | 2                        | 3                        | 4                        | 5                        |
|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Salary                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Workload                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Physical environment        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Collegiality                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Opportunities for promotion | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

### Ranking questions

Your respondent needs to rank a list of options in order of preference or relative importance (Please note ranking questions can be slightly more problematic to analyse). Example:

Rank the following 1-5 in terms of their importance to you when choosing a new course book for your class.

- Price
- Layout

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- Easy availability
- Pictures
- Quality of print

### Free text or comment box

In the multiple choice question above, a free text opportunity was used on the final line in case the researcher had overlooked a common reason for homework non-completion. This allows you to collect qualitative data and can add considerable detail and interest to your findings, but it can make the analysis process considerably more complex. You can also include larger boxes. Example:

*In your own words, describe the main issues that you took into account when deciding to become a teacher. Continue overleaf if you wish.*

## 2.1.3 Points to consider

### Comparing baseline to impact data

If you are interested in comparing baseline data to impact data e.g. by carrying out the same survey before and after an intervention, it might be useful to consider the following points:

- Ensuring the same people are responding to both baseline and impact surveys (so you compare like for like)
- How to ensure the same people are responding to both surveys (do you need to ask for names or an identifier)
- How do you ensure anonymity if you are asking for names
- Whether you're interested in individual response change or group response change.

### Administering your questionnaire

There are a number of ways of administering your questionnaire, including by post (best to include a stamped addressed return envelope if this is your method), by telephone, face-to-face (for example if you are visiting a school or clinic), or online (by email or using a URL link). Questionnaires can also be adapted for use in interview and focus groups. Remember when administering your questionnaire to provide the relevant ethical information to participants.





## 2.2 Interviews and focus groups

One important way of finding information out from other people is to collect data via interviews and focus groups. There are a number of ways that these can be conducted, including face-to-face, by telephone (in the case of interviews), or via Skype (again, more usually used for interviews, although a Google Hangout might be a possibility for an online focus group).

### 2.2.1 Types

In many ways, interviews and focus groups are similar in the way that they approach questioning. There are three ways of approaching the design:

**Structured**, which means having a fixed series of questions, from which the researcher does not deviate at all. In many ways, the structured interview can be seen as similar to personally administered questionnaires. All the questions are fixed in advance, the wording needs to be exactly the same each time, and the questions must be delivered in exactly the same order each time.

**Semi-structured**, which means that the researcher develops a series of questions to guide the interview that is consistent between all the interviews, but which allows for some flexibility and adaptation according to the responses of each research participant. Points can be followed up and particular areas probed more deeply if necessary.

**Unstructured**, which means that little or no pre-determined structure is used and interviewees are just allowed to roam across topics and content as they feel appropriate. They resemble a conversation and can be unpredictable, which makes the data more difficult to analyse.

For focus groups, the quality of the group interaction is very important and key to a successful outcome, so it may need careful handling by the researcher. This is something that trained teachers often find easier than those with no classroom experience, for example, making sure one person does not dominate and that more reticent speakers feel free to express their views. It is also important for the purposes of research to ensure that the full range of views is reported, rather than allowing the group to come to a consensus, or a form of what we might call 'group think', and simply reporting that in the data.

You also need to think of how you are going to record the interview or focus groups. It's difficult to be fully involved in the interview at the same time as taking notes, so it's probably better to record and transcribe later if at all possible (see section on

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transcription software). Remember to keep your recorder near to participants and check your battery/ back up in advance!

### 2.2.2 Pros and cons

Of course, all research methods have their pros and cons, some of which are set out below for both individual interviews and focus groups.

#### **Individual interviews: strengths**

- They allow time to probe an individual in considerable depth.
- They are likely to generate a lot of data.

#### **Individual interviews: weaknesses**

- Informants may be affected by their perceptions of the interviewer, the nature of the research, and what they believe the interviewer wants to hear.
- They can be very time consuming to set up and conduct.
- They can take a long time to transcribe and analyse, although it is sometimes possible to use transcription software to help with this.

#### **Focus groups: strengths**

- They can be useful for certain types of informants such as young children who may feel more comfortable in a group setting.
- They can be a useful preliminary exercise to see how members of a group feel or think about a particular topic (and can then be followed up in more detail with other methods such as individual interviews).

#### **Focus group: weaknesses**

- They can be difficult to manage, particularly if the interviewer is unskilled.
- Transcription can be more difficult, particularly when several voices are involved.
- Some individuals may actually speak less on account of peer pressure.

### 2.2.3 Points to consider

**Practical Considerations:** It is clear that interviews and focus groups can be very useful research tools indeed, particularly for research projects where resources are relatively limited, and rich (complex and nuanced) data are required from a small number of research subjects. We will now go through the different things you will need to consider if you are including either of both of them in your study.

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**Choice of sample:** Realistically, unless you are very fortunate, you are going to be limited in terms of the number of people who will be able to participate. A practical technique known as purposive sampling can help with this, however. For example, if you start by interviewing 6 female teachers for a project, you may wish to ask around in order to find an additional 6 male teachers of similar professional standing in order to ensure gender balance within your sample. Other categories worthy of mention here might include length of experience, ethnicity, rural/ urban/ suburban contexts, nationality, and so on. Which categories are important will vary according to the research questions you are asking. The same principle can be applied for focus groups and groups that involve pupils, for example.

**Setting up a group discussion:** From a practical point of view, it is likely you will be in contact with the management of an organisation such as the school, club, or other organisation regarding access to your sample. It is very helpful to ask them for advice about when the best time might be to get potential research participants to co-operate. You should aim for no more than 4-6 people in a group, and ideally it should last no longer than about 40 minutes, plus settling down time. If appropriate, you may want to provide simple refreshments such as soft drinks and biscuits or crisps, depending on the resources you have at your disposal.

**Running a group discussion:** This can be very daunting for many new researchers, but it helps if you have prepared your question framework or outline very carefully, and piloted it with a few friends. Try to keep your wits about you and pick up on the answers being given by group members as they go along. That way you can be adaptable and flexible. Make eye contact as often as you can, even if you are busy taking notes as well.

**Group dynamics:** It does happen that sometimes there is a very dominant member of the group, or a very reticent one, and here you need to use your judgment about where to step in, so that everyone gets a chance to speak. Similarly, if you get the sense that group members are moving towards a consensus where this may in fact not represent their overall views sufficiently well, you may need to steer the situation tactfully in order to ensure you have useful research data, rather than simply the result of a social interaction without any useful content. It's also worth keeping track of how much you are saying yourself so that you allow your participants plenty of space to talk – it can be easy to get carried away!

**Recording data:** Every researcher probably has a story about the day they travelled miles to interview someone when the recorder/laptop suddenly died just as they were finishing the interview. So, it can be helpful to have a backup recorder just in case! You might also like to keep notes of interviews or focus groups as you go along as well.



## 2.3 Observations

Research based on observation is unlike any other method of enquiry because it entails examining the actual practices that people engage in. Rather than looking at what people say or have written about what they do (as in questionnaires, focus groups, interviews, and documentary research), observations can gather data on what actually gets done in particular settings.

It can be a very useful method because there are many activities that people find it very hard to talk about, even if they are the kind of person who is skilful at talking. The problem is not so much whether they can talk about something, but how well their talk really reflects the practices they are describing. This is not necessarily a question of honesty (they may be entirely accurate in their descriptions), or of memory (perhaps they have remarkable recall), but of how easy it is to actually give a description of something. Imagine trying to teach someone to drive a car with just words, without access to a car or the ability to show them the various skills needed. Observations do away with the reliance on people's talk and go straight to looking at the activities themselves.

Observations can take a number of different forms. Sometimes researchers closely specify and design the activities that people are to perform while they are being observed, and at other times they simply watch what people do naturally in a given setting. People undertaking observations occasionally do so as members of those communities (like when a teacher observes another teacher in their professional work) and sometimes as an outsider to it (e.g. an anthropologist doing fieldwork in a different culture to their own, or a psychologist observing young children at play). Finally, some researchers are very clear about the behaviours that they want to observe and construct a tight observation schedule of the things they want to look at and record, while in other forms researchers may be much looser in pre-specifying what they are interested in, and allow their observation schedule to develop over time.

### Setting up an observation

The first step in setting up an observation is to consider what you actually want to observe and how this will help you to answer your research questions. You might want to observe a class in session, a planning meeting, an after-school club or activity, for example.

You will then need to think about practical considerations like how long your observation needs to be (e.g. 20 mins or longer?), how many observations you need to do (e.g. one session or more?) and how you will record the observation data. You can take detailed notes, for instance, or you can consider actually recording with a



video camera or phone for later review. In all cases, you will need to ensure that everyone involved has given their consent to be observed.

In order to make your observations as systematic as possible, you might like to use a simple observation schedule like the one provided in section 6.4.

## 2.4 Document analysis

Documents are often taken for granted, especially in research. Many documents are already familiar to us and their meaning can be thought to be obvious. As a result documentary research may become demoted to 'background' research before getting onto the real thing. They can, however, be a rich source of data for a researcher.

The range of documents is considerable: memos, letters, policy documents, curricula, student coursework, and letters to name a few. Online documents are also proliferating and greatly increase the potential for research. However, documents cannot always be read at face value and need to be assessed carefully. Some questions to ask about the status of documents include the following:

**Authenticity** – is it a genuine document and do you know the origin of it, especially the author, the place and date of writing? Are you sure it has not been forged and that you have the whole document? Have you understood the context in which a document was produced? Was there one author or multiple authors? What were the relations of production of a document – did it emerge from a collective process over a period of time?

**Reliability** – is the document representative in some way? Was the author's perspective significant and how has it influenced the claims that are being made? Has the document been censored and does it reveal certain biases? The survival rate of documents also varies. Official papers are more likely to be retrieved in archives than those of marginal groups. Only a part of the historical record may actually be available – others will be lost or destroyed.

Some other general questions to ask about any document include:

**What is the content of the document and what claims is it making?** Are the arguments consistent and logical or do they reveal contradictions and tensions? Does the document also deploy key terms and keywords? For example, what is the significance and implications of the use of contested terms like 'education', 'learning' and 'democracy'? Are there also references to contemporary events and issues?

**Silences** – Are there things which have been left out of a document, on purpose or inadvertently?

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**Can you compare a document to others which may make similar or contrary claims?** This is called triangulation – examining claims in the light of other documents and texts produced at the time.

In practical terms, there are a number of ways that you can go about analysing documents. One simple approach, for example, is to read through documents and highlight key words or phrases which are relevant to your study. This will help you to see things like how often particular terms occur (frequency) and/ or how they are used in different publications (interpretations). You can also treat documents in a similar way to how you would look at data such as an interview transcript, and look for key themes. Useful themes can often be drawn from the theoretical literature that you are using in your study, so this is something that it is helpful to have an idea of in advance, before you begin your analysis. Alternatively it is possible to derive the themes from the documents themselves, as you read and reflect on them. You may find that you actually use a combination of both approaches – by formulating possible themes in advance and then looking for these, and possibly revising them, as you read. In either case, you will need to read through key documents a number of times in order to familiarise yourself with them, and each time you do this you will be able to think through and reflect on the ‘data’ more deeply.

## 2.5 Participatory activities

There are also a range of useful participatory activities which can be used to gather information for research. Many of these will be familiar to practicing educators:

- Provide participants with images or photos and ask them to discuss them;
- Ask participants to take their own photographs and to share them with you (e.g. taking pictures of important ‘global issues’ in their school community and then explaining why they have taken them);
- Read a story or show a video which explores a global issue and then discuss their impressions of it.
- Provide a list of statements and ask participants to agree or disagree with them.
- Provide a list of unfinished sentences and ask participants to complete them (e.g. the most important issue in my school is....).
- Ask participants to draw a map or picture and discuss it with you (e.g. draw a picture of a friend you have made through your school partnership).
- Provide participants with a list of statements or concepts and ask them to sort them or rank them according to importance. This is sometimes known as a diamond ranking exercise.

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These activities can be used with individuals or in groups, depending on what you are trying to find out. There are lots of great ideas for more of these kinds of activities online and the book by Johnson et al (see link below) is a great place to start.

### 2.6 Where can I go for more information?

Bryman, A. (2008) 'Interviewing in qualitative research', pp435-471 in *Social Research Methods*. Oxford: Oxford University Press.

[Johnson, V., Hart, R. and Colwell, J. \(2014\) Steps to Engaging Young Children in Research. Brighton: University of Brighton.](#) [This is a two volume set which provides lots great ideas for participatory activities in research with young children as well as guidance on how to do them.]

Smithson, J. (2008) 'Focus groups', pp357-370 in Alasuutari, P., Bickman, L. and Brannen, J. (eds) *Sage Handbook of Social Research Methods*. London: Sage.



## 3 ANALYSING YOUR DATA

The analysis of your data is an important part of the process as it is through this analysis that you find the answers to your research questions. There are different approaches to data analysis depending on the type of data that has been collected and whether it is qualitative or quantitative data. The sections below provide some general advice on how to 'deal with' data that you have collected as well as some useful ideas about further readings.

### 3.1 Quantitative data analysis

Quantitative data analysis summarises and reports on numerical data collected via tools such as questionnaires and surveys. Quantitative data is usually brought together in some sort of spreadsheet e.g. Excel. Online survey tools such as Survey Monkey and Google Forms do this automatically. In spreadsheet form each column corresponds to a question (or sub-question) asked and each row to a participant. Once collected into spreadsheet form the first task is to clean the data.

**Cleaning quantitative data:** Cleaning data involves preparing the data for analysis. It is at this stage that you remove corrupt or inaccurate data, identify incomplete or irrelevant data. At this stage you would check for and decide what to do about:

- missing data
- responses that are exceptional (outliers)
- responses that are all the same (e.g. answer the same way to each question)
- surveys completed in too short a time – you can see this in online software
- missing respondents (do you have low numbers of teachers responding or specific categories of teachers – e.g. maths teachers, female maths teachers; if you're matching baseline to impact data do you have the same respondents in each dataset)

Once cleaned you then will want to decide how to analyse and present your data. Pivot tables can help you collate, summarise and analyse data within Excel. There are various resources to help understand how pivot tables work and whether they are suitable for your research (see Further Resources).

For the purposes of the Research Fund you would most commonly use descriptive statistics which describe and present data in a simplified way; reporting on data rather than predicting or inferring from the data. Types of descriptive analysis might include you exploring the distribution of a range of responses to a question; looking at the mean, mode or median responses; or you might be interested in the



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dispersion. Descriptive data is usually presented via tools such as diagrams, charts and tables. For example:

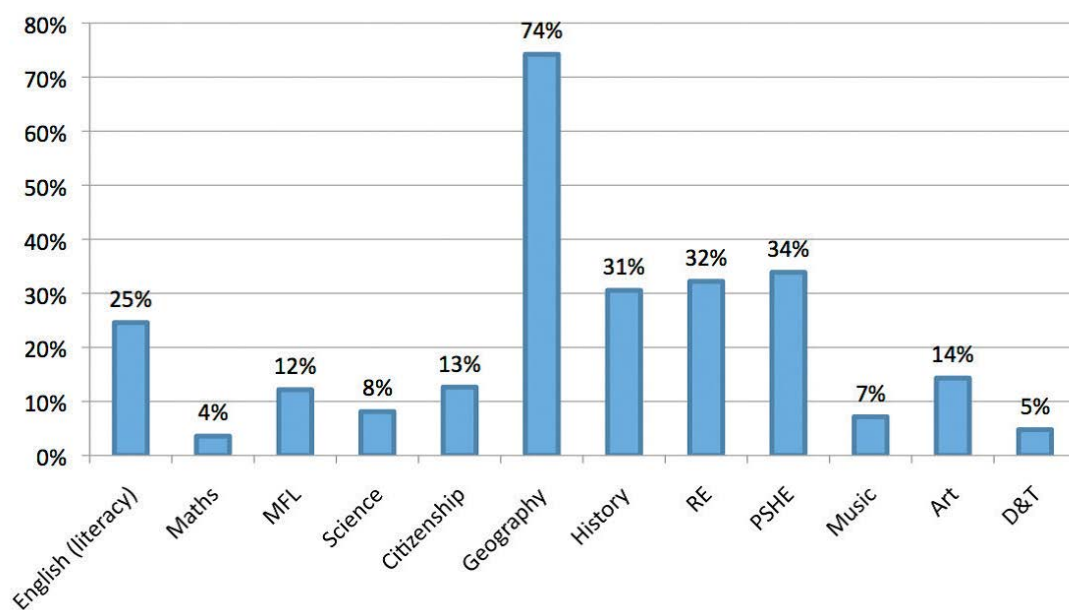
**Frequency tables:** Provides the number of people and the percentage belonging to each category related to the question asked. For example:

| Subject specialism of teacher | Number of teachers involved | % of teachers involved |
|-------------------------------|-----------------------------|------------------------|
| Maths                         | 12                          | 32                     |
| English                       | 5                           | 14                     |
| Science                       | 13                          | 35                     |
| Geography                     | 7                           | 19                     |
| Total                         | 37                          | 100                    |

**Diagrams:** for example pie charts, bar charts, line graphs or histograms display quantitative data in a form that is easy to see at a glance.

The following bar chart (Hunt and Cara, 2015: 41) presents % data which shows where global learning is most present in schools. It shows 74% of responding schools included global learning in geography. Note the number of responding schools is included in the title (N=X).

Figure 1: % of schools where global learning is included in curriculum subject areas (GLP schools, N = 419)



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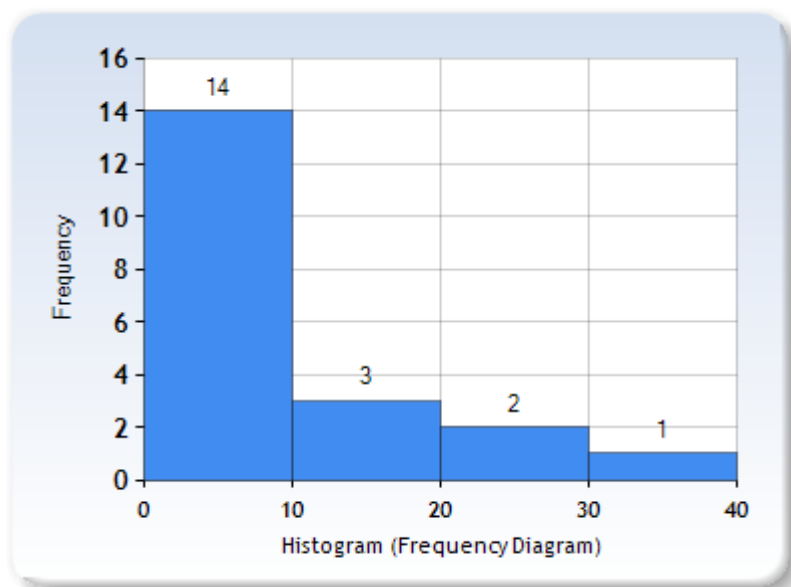


A histogram represents a frequency distribution of numerical data. It's different to a bar chart because it groups numbers into ranges and is useful for continuous data. For example the following table shows the number of years teachers in one school have been working as teachers – the histogram (Figure 1) organises that data visually into a frequency chart.

**Table 1: Example data**

| teacher code | years of teaching |
|--------------|-------------------|
| T1           | 10                |
| T2           | 2                 |
| T3           | 5                 |
| T4           | 17                |
| T5           | 27                |
| T6           | 2                 |
| T7           | 3                 |
| T8           | 1                 |
| T9           | 7                 |
| T10          | 8                 |
| T11          | 3                 |
| T12          | 16                |
| T13          | 7                 |
| T14          | 3                 |
| T15          | 31                |
| T16          | 9                 |
| T17          | 3                 |
| T18          | 7                 |
| T19          | 9                 |
| T20          | 22                |

**Figure 2: Example of histogram**



There are software tools to help support you with quantitative analysis. Excel is the most obvious and has good functionality. You Tube has a series of videos on how to analyse data using Excel, some of which have been identified in Further Resources.



## 3.2 Qualitative data analysis

Basically, analysis of qualitative data is the process of looking at what you have collected from as many different angles as possible, so that you get a full picture in answer to your questions. It is a process of categorisation of the data into groups (themes), comparing the themes, cross checking, trying different categorisations, looking for things that don't fit, etc.

For example, imagine you have interviewed 5 people, observed 2 people teach, and looked at a couple of documents. You need to go through each interview, each set of observation notes, and each document looking for themes in the data. These themes might come from your research questions. For example, if you are looking at teachers' understanding of the global dimension and you have defined this as having a number of components, then any mention of one of the components could be a bit of data belonging to that theme.

You then need to look in the data for what other themes are emerging. This might include themes that you did not expect to find. Again, you will need to compare what each person said in the interviews with what you observed and with what is written in the documents.

To illustrate this have a go at the activity below which illustrates the process of analysing data. You can do this on your own or better still with a friend/ colleague/ member of your family. They do not need to know about research.

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### Self-guided Activity 6: Analysing data

Collect a pile of objects. Choose a big theme. So for example, they could be objects from the work stationery cupboard, or things from the kitchen or your office at home. Within that theme collect a range of different objects (e.g. pens, paper, staplers, paperclips, pencils, labels etc.) and if you are working with a friend then make two collections under the same theme. Make the two collections similar but they don't have to be exactly the same. For example, each collection might have pens but one might have 4 and the other 5 or one might have different makes or different colour ones.

Put the objects in a pile on the table in front of you (and ask your friend to do the same thing). Imagine the objects represent data that you have collected, so each object is like a piece of data. If you are working with a friend, do the following tasks separately and then compare your results in between each stage. If you are working on your own then make notes of your own results.

Step 1: Organise the items into groups according to a theme of your own choice (e.g. size, weight, colour). If you are working with a friend, compare your results.

Step 2: Now group the items according to what they are made of (e.g. metal, paper, plastic). If you are working with a friend, compare your results.

Step 3: Now group the items according to their shape (e.g. square, circular). If you are working with a friend, compare your results.

Consider how all these different ways of arranging items are similar to how researchers organise their data. Is any one way of arranging them 'right' or 'wrong'? How might diverse perspectives on data impact on the process of analysis?

### Self-guided Activity 7: Working with qualitative data

Below are 3 examples of qualitative data about teachers' understandings of English language teaching, collected as part of a PhD research project called 'Communication and Teachers' Learning During Training : A case study of the Secondary and Technical English Project, Mozambique' by Clare Bentall (2003).  
[Please note: These extracts are not to be quoted or used in anyway, other than for this activity.]

Follow the directions below to complete the activity:

1. Read the extracts and get a feel for the data.
2. Take the first extract and make a note of any themes around teachers'

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understandings that you can find.

3. Mark at the side of the extract where you think the themes are shown.
4. Go through the next extract looking for the same themes. Again mark them at the side of the extract.
5. Now repeat this for the third extract.
6. Now go to the second extract and look for any other themes not in the first one. List them and mark them at the side of the extract.
7. Now look for those themes in extracts 1 and 3.
8. Now go to extract 3 and see if there are any other themes. List them, mark them on the text, and look in extracts 1 and 2 for those themes.
9. Now go through all the data looking for things that don't fit the themes and maybe even contradicts them.
10. Now look in all the extracts for what individual teachers say (use the labels to help you: e.g. Teacher M). Write notes on what themes that individual teacher follows. If you have this for more than one teacher then compare them.
11. Now write down your conclusions from the above process as to what the key themes are in the teachers' understandings and how those themes relate, what contradicts those conclusions and also how these conclusions are illustrated in the individual teachers' ideas.

As this is not your data it does not entirely matter what your themes are in the end, but spend some time reflecting what going through this process has taught you about the nature of qualitative data and the challenges and issues around analysing it.

### **Observation data – Observation of the teachers in a training session**

#### **Part of Session June: 8 Pair work and group work (16.6.98)**

In the first part of the session the teachers discuss what they remember about a text they read before the course, including problems they found. Teacher M mentions difficulties with large classes, Teacher P says having odd numbers of learners is problematic and Teacher B mentions learners not paying attention. The concepts of 'student talking time' (STT) and 'teacher talking time' (TTT) are then introduced by Trainer 6(M), who reads out a text from a handout on the subject (see Appendix 6). When asked what STT and TTT are referring to Teacher M says "The main idea here is to transfer more time to the student."

4.30: Trainer 6(M) puts them in groups and asks them to discuss the disadvantages and advantages of pair/ groupwork for 15 minutes.

Discussion from one group of teachers:

*Teacher L: "Students talk about something different than what they are*

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*supposed to do.”*

*Teacher D: “Noise.”*

*Teacher A2: “It also spends time.”*

*Teacher L: “The students instead of working do something different.”*

*Teacher S: “The students talk over things instead of working.”*

*Teacher A2: something about “jokes”.*

4.45: Trainer 6(M) asks for plenary feedback first on disadvantages and then advantages of pair/ groupwork. Teachers give feedback from their individual group discussions.

### Disadvantages

*“It’s always noise in the class.”*

*“Time consuming.”*

*“Some students don’t participate in groupwork ...especially the weaker students.”*

*Teacher L: “The students speak other languages.”*

*Teacher A2: “Students talking about other issues which are not related to the lesson.”*

*Teacher E: “It is not easy for the teacher to control the pairwork, especially large class.”*

*Teacher M: “The teacher became lazy ...too much pairwork.”*

*Teacher A: “Other languages.”*

*Teacher O: “Students are...overworked.”*

*Teacher H: “Teacher doesn’t know individual problems. You are leaving some students without listening.”*

*Teacher A2: “We find a lot of absent minded students.”*

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*Teacher G: "Some students can be joking during the lessons."*

*Teacher A2: "But they can be joking without making noise."*

4.50: Trainer 6(M) asks for feedback on advantages

### Advantages:

*Teacher W: "It's the only way to push everybody to participate in the class. It gives time for the students to practise."*

*Teacher A: "It provides variety for the students."*

*Teacher S: "Students are encouraged to work hard."*

*Teacher H: "It gives chance to students to use real things."*

Trainer 6(M) asks, "How do students feel in group work?"

*Teacher M: "They feel like they are playing. It's not good."*

*Teacher E: "It depends on the activity."*

*Teacher A2: "It also helps students to use their thinking to discuss issues and topics."*

*Teacher A1: "He and she could feel something but in group..."*

*Teacher H: "I discovered something. You ask other students, please work in pairs. The students go to another corner because it is their friend."*

*Teacher C: "Chance to get to know each other. Good to mix students."*

### **Interview data – Individual semi-structured interview after watching the teacher teach**

#### a) Teacher M

*"I was relying very much on me talking a lot and giving a load of notes to the student. Now with the introduction of pair work, and this and that, I find out that these things are important".*

*"But from my teaching I noted that there was need to introduce pair work on step five that one student would give a sentence in the singular and the other*

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*put it into plural”.*

*“Depending on the lesson...because there may be an activity of which you think two people could do it. Somebody is there and does something and somebody there does something. That is depending on you. So if you think that is the way then that is how I think I...take it as pairwork. But when I see that...I don't find two different things working together then it is better to make them work as a group or work as a whole class”.*

b) Teacher C

*“Before I was not very much used to promote the interaction in the classroom. Because I thought I was doing better by just delivering the lesson without using much discussion in the class”. Now he says, "If you just go there and stand at the board at the front and start teaching, most of them may not say a word even. So you find that the better way is to dialogue it with them and let them dialogue amongst themselves”.*

c) Teacher E

*“I think I can't teach without pair or groupwork. It is impossible”.*

### **Reflective Diary data – From diaries written by teachers during the training programme**

a) Teacher H

*“I have to make sure that the new ideas are working properly and making sure that each and every student is participating and contributing, whether in pair work or group work”.*

## 3.3 Where can I go for more information?

Cohen, L., Manion, L. & Morrison, K. (2011) 'Approaches to qualitative data and analysis' in *Research Methods in Education*, pp. 537-546 . 7th ed. London: Routledge. [You might also find it helpful to review Chapter 29 'Organising and presenting qualitative data' and Chapter 30 'Coding and content analysis'.]

Gibbs, G.R. (2007) 'Thematic Coding and Categorizing' in *Analyzing Qualitative Data* (Book 6 of The SAGE Qualitative Research Kit), pp. 38-55. London: Sage.



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Green, J., Camilli, G. and Elmore, P. (Eds.) (2012) Handbook of Complementary Methods for Research in Education. Mahwah, NJ: Lawrence Erlbaum & Associates. [See especially Chapter 34 'Representing Qualitative Data' which discusses how to effectively use data within a written report of research.]

Stewart, D.W., Shamdasani, P.N. and Rook, D.W. (2015). 'Analyzing Focus Group Data' in Focus Groups: Theory and Practice, pp. 115-140. London: Sage.

### Resources for quantitative analysis

Excel Easy Pivot tables. <https://www.excel-easy.com/data-analysis/pivot-tables.html>

Grande, T. (2015) Creating a histogram in Excel. Accessed at: [https://www.youtube.com/watch?v=53DOu\\_vstvl](https://www.youtube.com/watch?v=53DOu_vstvl)

National Union of Students (2016) Quantitative data analysis. Accessed at: <https://www.youtube.com/watch?v=81jmL-jUdcA> (more advanced)

Russell, David (2014) Introduction to quantitative data analysis. Accessed at: <https://www.youtube.com/watch?v=k5XR3Ari7-0>

Skillshare (2015) How to clean up raw data in Excel. Accessed at: <https://www.youtube.com/watch?v=3es54FafNC0>

Social science statistics. <https://www.socscistatistics.com/descriptive/>

Stevens, Scott (2014) Making a simple bar graph in Excel. Accessed at: <https://www.youtube.com/watch?v=Txfyn4ipl>

Technology for Teachers and Students (2018) Creating pivot tables in Excel. Accessed at: <https://www.youtube.com/watch?v=BkmxrvlfDGA>



## 4 WRITING YOUR REPORT

### 4.1 Structure and elements of a research report

Having considered all the different elements involved in a research project, have a look below at what you should include in your final written document. You do not need to use the headings below as headings for your chapters and you do not necessarily need to follow the exact order either.

#### 4.1.1 Introduction

Purpose: to tell reader briefly/ clearly what the report is aiming to do and how it does it

Usual elements (not necessarily in this order):

- overall aim
- guiding research question(s)
- rationale (why the research is important)
- research approach (methodology)
- background information to set the scene/ describe the 'gap' in what is known about the research area that the report is aiming to contribute to
- outline structure of the work to follow

#### 4.1.2 Literature review

Purpose: discussion of different relevant groups of literature that helps the reader be prepared for the rest of the report.

Note – You may review literature in many places in the report, and not just in a single section or chapter.

#### 4.1.3 Methodological approach

Purpose: to show the reader how you conducted the research in order to answer the research questions and help achieve your overall aim.

Usual elements: (not necessarily in this order):

- overall statement of broad research approach (e.g. qualitative vs. quantitative)



- discussion of methods used within the study (interviews, observations, analysis of documents etc.)
- timetable of data collection
- ethical considerations
- analysis process
- limitations of the research

### 4.1.4 Presentation of findings

Purpose: to show the reader what you have found in relation to the research questions – to present the **results** of your analysis.

Usual elements:

- examples of data, sorted and presented systematically in relation to categories (often research questions) that tell a story.

### 4.1.5 Discussion/ recommendations

Purpose: to talk about the implications of your findings in relation to the literature and the overall aim of the report

**Usual elements:** (not necessarily in this order)

- conclusions in relation to the research questions
- possibly some discussion reflecting on the research carried out and what you have learned
- implications for practice/ policy/ research
- recommendations for practice/ policy/ research

### 4.1.6 Referencing

All reports should use academic referencing. There are many guides to Harvard referencing published by universities. For example: [click here](#).

## 4.2 Formatting guidelines

After the title page, you should have an abstract of not more than 300 words and a table of contents giving chapter headings and page numbers. Generally, your report should include the following:

- An abstract
- An introduction outlining the aims, research questions, rationale and structure

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- Literature review
- Methodology
- Analysis chapters
- Discussion and conclusion, summarising key arguments, research findings and recommendations related to aims and reassert questions.
- References to literature, research studies, reports etc.

Your pages should be numbered in one continuous sequence and use Arial size 11 font.

All reports should use academic referencing. For guidance on academic referencing, there are many guides to Harvard referencing published by universities. You could also look at a reference management tool such as Mendeley which is free to download and can support storage of references. It also has a useful guide for referencing: <https://www.mendeley.com/guides/harvard-citation-guide>.

There is also information available to avoid plagiarism. [Click here for a helpful UCL Library Guide](#).



## 5 DISSEMINATING YOUR RESEARCH

Final reports will be made available to the public via the CCGL website and British Council's networks, as well as partner websites and networks (including the UCL Institute of Education, Development Education Research Centre).

Since the aim of the Fund is to encourage practitioners to explore their own practice and also to share their findings with other educators and researchers, the research findings can also be disseminated in a number of other creative ways, including:

- Making a presentation to staff and/ or students in your school
- Sharing your work at a conference (e.g. TEESnet or a subject association)
- Creating teaching resources or guides for teachers based on your findings
- Writing an online blog or an entry for your school newsletter
- Writing an article for a subject association newsletter
- Run a webinar for other educators

You can also develop your own research profile on sites such as Research Gate and Academia.Edu



## 6 ANNEXES

### 6.1 Example application forms

The following are extracts of application forms completed for the Global Learning Programme in England, which are included with the permission of the applicants.

#### Example 1<sup>2</sup>:

##### Proposed title of research study:

Explore how *Philosopher's Backpack* can enrich P4C and Global Learning

##### Aim of research study:

An action research project collaborating with pupils and teachers to improve practice of Global Learning through the facilitation of thinking skills activities

##### Research questions

1. How are thinking skills relevant to Global Learning?
2. How can the *Philosopher's Backpack* help pupils to improve their thinking skills?
3. How can the *Philosopher's Backpack* help teachers to improve their facilitation of thinking skills activities?

##### Rationale

The study will build on extensive literature regarding the benefits of P4GC (Philosophy for Global Citizenship) within DE and P4C fields. It will present an innovative tool for facilitating thinking skills activities for teachers involved in the GLP programme. While the outcomes of the research will be relevant for teachers who

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<sup>2</sup> Included with the permission of Jane Yates. Jane published [How can the Philosopher's Backpack enrich critical global thinking?](#) As part of the GLP Innovation Fund Research Fund.

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have attended P4C and GL training, it could also serve as a catalyst to raise awareness of the benefits of P4C and GL for teachers who have no experience of P4C.

### Methods

The methodology will involve an action research approach. In-depth exploration of the Philosopher's Backpack will be made within my own practice in school as a pilot study and alongside other schools. I am a SAPERE trainer and work with networks of schools in Cumbria, Worcestershire and Cheshire. A selection of up to 6 schools will be made who will facilitate the use of the *Philosopher's Backpack* as part of their P4C and GL practice over the period of a term. Questionnaires will be carried out via an online survey through a designated website. These will include a small quantitative element, but mostly they will form qualitative observations. If necessary, for triangulation purposes, telephone interviews will be arranged. With the two schools observation visits will be made. The data will be recorded in written format and analysed for emerging themes.

### Support

I would especially like support at the research design stage.

### Are there any ethical considerations to think about in relation to the research study?

Permission will be gained from participants regarding requests for anonymity. As this research is about improving practice, it is unlikely there will be confidential issues, however, respondent validation will be undertaken to ensure validity.

### Time frame

Up to 6 months.

**Schedule** – please provide a schedule of proposed activities:

| Activity                      | Timing (approx) |
|-------------------------------|-----------------|
| Research design               | Week 1          |
| Contact with schools          | Week 2-3        |
| Production of resources       | Week 2-3        |
| Research period               | Week 4-16       |
| Questionnaires and Interviews | Week 17-19      |
| Data analysis                 | Week 20-21      |
| Write up of report            | Week 22-26      |

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### Outputs

- Research report and summary of research findings document as required
- Article based on summary of findings for P4C/GLP/DEC/outdoor Ed networks
- Local press publicity

### Dissemination

- Designated *Philosopher's Backpack* twilight training session
- Designated *Philosopher's Backpack* website linked to school website
- Level 1 P4C & GL training courses
- P4C networks via SAPERE website, bulletin
- GLP networks via website
- School Expert Centre network via newsletter, email and school website
- Development Education Centres newsletter/website
- My own website

It is also intended to make a short film clip about the *Philosopher's Backpack* to be shared on GLP/P4C websites

### Is there any other information you think is important to this study?

*Philosopher's Backpack* is an innovative tool for facilitating thinking skills activities as part of P4C and Global Learning. The central idea is that a 'backpack' is a metaphor for the notion that P4C can be facilitated in any classroom around the world, including the outdoors. P4C has the explicit aim of teaching pupils to 'think for themselves' and thus the underlying values of the 'backpacker' are about independent and responsible thinking. Within the backpack are pieces of 'thinking kit' such as a compass, rope, headtorch, whistle, map, sunglasses, karabiner, world ball and magnifying glass. Each piece of kit has the potential to be used as part of a thinking skills game or as a conceptual tool. For example, the headtorch is used so that pupils can 'shine a light' on a relevant concept on the 'concept map'. The world ball can be used as part of a thinking skills passing game, or it can be used conceptually as the 'universal ball' when considering whether a point of view applies to everyone in the world. The compass can be used conceptually to consider the 'direction' of a discussion and whether it is moving in the right direction.

Experience of using the *Philosopher's Backpack* in the classroom has showed that it is highly *accessible* and *practical* for children to articulate their thinking, especially in terms of metacognition.

The *Philosopher's Backpack* has been developed by Jane Yates within her practice at X School. It has currently been shared with very few schools and this research



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project would be an ideal way of collaborating with other schools to develop the idea further.

### Example 2<sup>3</sup>:

**Proposed title of research study:** Towards an understanding of the contribution of global learning to the wellbeing and mental health of young people with special educational needs.

**Aim of research study:** To test the benefits or otherwise of Global Learning for the wellbeing and mental health of young people with special educational needs

### Research questions

Identify three to four research questions you would like to explore through the study:

1. Is global learning beneficial to the wellbeing and mental health of young people with special educational needs?
2. How would be describe the impact of Global Learning on the wellbeing and mental health of young people with special educational needs?
3. What questions arise from the process of testing the benefits of Global Learning for this focus and group?

### Rationale

There has been very little research to date on the impact of Global Learning on young people with special educational needs. By focusing on wellbeing and mental health, we are addressing a core concern of the schools involved. It will be important to practitioners in special schools, academics and Global Learning practitioners.

### Methods

Tracking data using existing frameworks with 6-12 pupils.

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<sup>3</sup> Included with the permission of Ben Ballin and Laura Murphy. Ben, Laura and Ann McGuire produced the following output: [Towards an understanding of the contribution of global learning to the wellbeing and mental health of young people with special educational needs](#). GLP Innovation Fund Research Paper no. 4

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Teacher-researcher interviews with 6 pupils – contemporaneous notes.

External researcher interviews with 4 teachers - contemporaneous notes and recordings.

Feedback from structured and semi-structured activities with a wider teacher group (n=10).

The external researcher will take an over-all role in collating data, with Laura Murphy as teacher-researcher leading on data collection in school. The data collection process uses mixed methods to obtain data from key stakeholders, which will then be subjected to triangulation and analytical discussion by the research team, identifying common and dissonant themes in relation to the research questions.

### **Are there any ethical considerations to think about in relation to the research study**

Pupil confidentiality will be maintained. Written permission will be sought from all teacher participants.

### **Time frame**

January to December 2017.

**Schedule** – please provide a schedule of proposed activities:

| Activity               | Timing          |
|------------------------|-----------------|
| Project design         | Jan-Feb 2017    |
| Pupil tracking         | March-July 2017 |
| Pupil interviews       | May-July 2017   |
| Teacher interviews     | May-July 2017   |
| Teacher group feedback | June-July 2017  |
| Analysis and write-up  | Sept-Nov 2017   |
| Dissemination          | Nov-Dec 2017    |

### **Outputs**

Research report with summary of findings. Contributions to Global learning and SEN journals, blogs, conferences as appropriate and as opportunities arise.

### **Dissemination**

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A summary will go to all Special Schools locally, SEN and specialist journals, DE forums (e.g. via Think Global newsletter, NAEF journal, subject association journals, via Development Education Centres and Networks).

## 6.2 Example final research reports

The Global Learning Programme (GLP) in England ran a similar type of fund. Please see: <https://globaldimension.org.uk/chooseglp/glp-england-update/reports-publications/> for copies of the reports that were completed (under Innovation Fund Research) or see the links below:

Colette Cotton (2018) [A study exploring the sustainability of global learning in schools](#). GLP Innovation Fund Research Paper no. 7.

Jane Yates (2018) [How can the Philosopher's Backpack enrich critical global thinking?](#) GLP Innovation Fund Research Paper no. 6

Jen Simpson (2018) [Participatory Pedagogy in Practice: Using effective participatory pedagogy in classroom practice to enhance pupil voice and educational engagement](#). GLP Innovation Fund Research Paper no. 5

Ben Ballin, Ann McGuire and Laura Murphy (2018) [Towards an understanding of the contribution of global learning to the wellbeing and mental health of young people with special educational needs](#). GLP Innovation Fund Research Paper no. 4

Margaret Lewis (2016) [A study of a focused, critical approach to pupils' images and perceptions of Africa](#). GLP Innovation Fund Research Paper no. 3

Jen Simpson (2016) [A study to investigate, explore and identify successful 'interventions' to support teachers in a transformative move from a charity mentality to a social justice mentality](#). GLP Innovation Fund Research Paper no. 2

Martina Heuberger (2014) ['Worldmindedness' and Development Education: A Teacher Voice](#).



## 6.3 Sample information sheets and consent forms

The following sample information and consent forms might be used and adapted to support ethical requirements for your project.

**Title of Research Project:**

**Name of Researcher:**

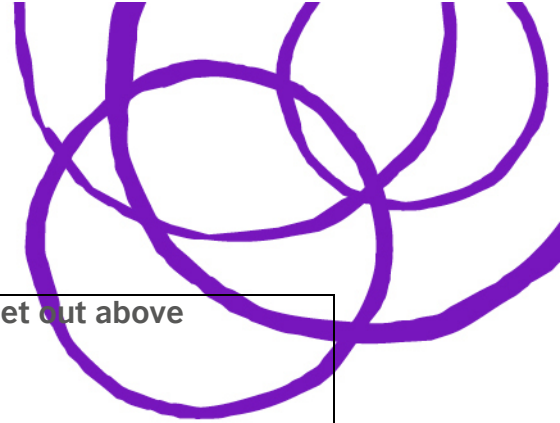
### Consent form for interviews (teachers)

If you are happy to participate in this study, please sign and complete this consent form and return to ***[insert researcher's name]*** at ***[insert researcher's contact details]***.

|  |     |    |
|--|-----|----|
| I have read and understood the information leaflet about the research.   | Yes | No |
| I have understood the privacy notice about data and consent to my data being used for the purpose and time required for this study in line with the UK Data Protection Act 2018. | Yes | No |
| I agree to be recorded during the interviews (audio only).   | Yes | No |
| I understand that if any of my words are used in reports/ presentations they will not be attributed to me.   | Yes | No |
| I understand that I can withdraw from this research at any time, and that if I choose to do this, any data I have contributed will not be used.                                  | Yes | No |
| I understand that I can contact the researcher at any time and request that my data be removed from any project database.  | Yes | No |
| I understand my personal data will not be shared to any third party and pseudonyms will be used.   | Yes | No |

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|  |
|--|
| By signing this Consent Form, I agree to these terms set out above |
| Name: ..... (the “Individual”)                                     |
| Signature: .....   |
| Date: .....  |

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**Title of Research Project:**  
**Name of Researcher:**

## Consent form for observations (parents)

If you are happy for your child to participate in this study, please sign and complete this consent form and return to **[insert researcher's name]** at **[insert researcher's contact details]**.

|  |     |    |
|--|-----|----|
| I have read and understood the information leaflet about the research.   | Yes | No |
| I have understood the privacy notice about data and consent to my child's data being used for the purpose and time required for this study in line with the UK Data Protection Act 2018. | Yes | No |
| I agree for my child to participate and be recorded in the observations (audio).   | Yes | No |
| I understand that if any of my child's words are used in reports/presentations they will not be attributed to him/her.   | Yes | No |
| I understand that I can withdraw my child from this research at any time, and that if I choose to do this, any data he/she has contributed will not be used.                             | Yes | No |
| I understand that I can contact the researcher at any time and request that my child's data be removed from any project database.  | Yes | No |
| I understand my child's personal data will not be shared to any third party and pseudonyms will be used.   | Yes | No |
| <b>As the Subject's Parent/ Guardian, I hereby agree to the terms set out in this Consent Form</b>   |     |    |

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|                                 |              |
|---------------------------------|--------------|
| Name of Parent/ Guardian: ..... |              |
| Signature: .....                |              |
| Tel.: .....                     | Email: ..... |

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**Title of Research Project:**  
**Name of Researcher:**

## **Consent form for classroom observations (adults/teachers)**

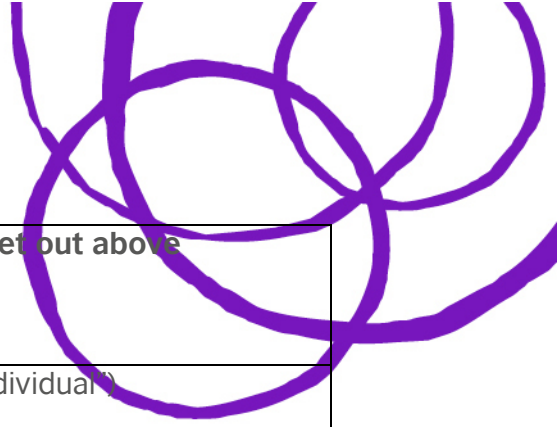
If you are happy to participate in this study, please sign and complete this consent form and return to **[insert researcher's name]** at **[insert researcher's contact details]**.

|  |     |    |
|--|-----|----|
| I have read and understood the information leaflet about the research.   | Yes | No |
| I have understood the privacy notice about data and consent to my data being used for the purpose and time required for this study in line with the UK Data Protection Act 2018. | Yes | No |
| I agree to participate and be recorded in the observations (audio).  | Yes | No |
| I understand that if any of my words are used in reports/ presentations they will not be attributed to me.   | Yes | No |
| I understand that I can withdraw from this research at any time, and that if I choose to do this, any data I have contributed will not be used.                                  | Yes | No |
| I understand that I can contact the researcher at any time and request that my data be removed from any project database.  | Yes | No |
| I understand my personal data will not be shared to any third party and pseudonyms will be used.   | Yes | No |



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|  |
|--|
| By signing this Consent Form, I agree to these terms set out above |
| Name: ..... (the "Individual")                                     |
| Signature: .....   |
| Date: .....  |



## 6.4 Sample observation schedule

| <b>Name of Teacher:</b>        |                 |                     |
|--------------------------------|-----------------|---------------------|
| <b>Date of observation:</b>    |                 |                     |
| <b>Location:</b>               |                 |                     |
| <b>Purpose of Observation:</b> |                 |                     |
| <b>Time</b>                    | <b>Activity</b> | <b>Observations</b> |
|                                |                 |                     |
|                                |                 |                     |
|                                |                 |                     |
|                                |                 |                     |