University of Reading

YOUNG RESEARCHERS **TOOLKIT**

Whitley CDA

Young Researchers

JOHN MADEJSKI ACADEMY

STUDY HIGHER

ACKNOWLEDGEMENTS

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FOREWORD

This Toolkit underlines the importance of encouraging and inspiring young people to reflect on their learning with others in a shared exploration of their chosen issues or concerns. It is a product of several years of working with young people in a secondary school in Whitley, Reading – the John Madejski Academy. The Whitley Researchers – a research collective of residents in alliance with university staff and students – were an early precursor of what we now describe as Young Researchers; a group of students whose secondary school career was, in part, a mix of curriculum led learning and independent research. Their experience of conducting the research with the support of the Whitley Researchers and university people is condensed into this toolkit - essentially a manual for other young people willing to venture into discovery learning.

Urging young people to take up learning through research in a community of discovery has immense benefits to them as learners from building confidence, developing team work skills, gaining skills in collecting and analysing data, creating a capacity to critically reflect on their own circumstances, generating new knowledge and understandings, constructing personal presentation, becoming self-learners and more informed citizens. In our experience and invariably, what the young researchers choose to investigate is a matter of wider social concern – choices which immediately locate learning in a civic context and their school as a participant in community and wider arenas.

Let's not forget that other driving element that moves young people through their chosen research path – the demands made on creativity and imagination. Young people breathe a freshness of vision and change and giving them the release of self-conducted research opens the door to new ways of seeing and even transforming the world they live in. This is a different kind of responsibility for a young learner doing research – it is the distinction between being in charge of learning and dependence on others for learning.

Why not try the young researcher route? Not only for the development of your students but you too as a teacher supporting and coaching a different way of learning within the more established and traditional learning curriculum routes. It may require a dimensional shift but the toolkit is detailed in its support via the various research steps and creative box suggestions and we as community researchers are always willing to advise and support your initiative.

The toolkit receives the Imprimatur of the University of Reading and Study Higher. We hope that any engagement with a young researcher project will help build links between your school and higher and vocational education.

We owe thanks to all our engaged schools, university staff and students and also to those who collaborated to help put this toolkit together.

Dr Sally Lloyd-Evans
February 2021

ACTIVATING & SUSTAINING YOUNG RESEARCHERS – **A TOOLKIT**

WHO IS IT FOR?

This toolkit offers guidance and suggestions to enable teachers in secondary schools to help their students to become researchers – young researchers. The guidance focuses on how to initiate groups of young researchers and how best to develop and sustain their research projects.

WHAT IS IT?

The toolkit is a collection of activities with accompanying information set out in chronological steps that help build a team or teams of young researchers.

WHY YOUNG RESEARCHERS?

The case for young researchers is compelling given the over-emphasis on individuated learning driven by a culture of maximising performance in national examinations. Attainment in gaining qualifications is vital to a student's future prospects. However, their approach to learning is greatly enhanced if they gain a more holistic or well-rounded experience of learning in groups and tackling research projects that they have devised. These learning benefits are indispensable first steps in enabling youth voice, participation and activism – advances that elevate research beyond the customary, **for** young people, to research **by** young people.

VALUES

A young researcher initiative must be values driven; democratic (we all share decisions equally); collective (we are a team prepared to work together); ethical (we know what is morally right and what is not); inclusive (we include different types of people and treat them equally and fairly).

INTRODUCTION

This is a toolkit derived from four years of concentrated work developing young researcher teams led by the University of Reading, its partner Whitley Researchers - a resident based participatory action research collective – and primarily the students and staff at the John Madejski Academy in Reading. Further information is available via https://research.reading.ac.uk/community-based-research.

METHOD

The method is offered in two parts – firstly, a list of recommendations that should precede a young researcher project and secondly practical steps to take if there is agreement to start a young researcher initiative. The latter form the key elements in this toolkit.

The approach to developing young researchers should note the following prior recommendations:

- Positive approval and support at the highest school level
- Early consultation with fellow teachers and students – how do they regard a proposal to initiate a young researcher initiative?
- An assessment of where to locate the initiative – for instance, in an alternative curriculum area and selection of a teacher lead
- Decisions about what resources will be available to support the young researchers
- Agreement and permissions on the amount of time to be allocated to staff and young researchers perhaps with some acceptance of hours within and outside of the school timetable
- A clear policy on the procedures to guarantee safety and well-being including a commitment to meeting General Data Protection Regulations (GDPR) and ethical compliance.
- An expectation that the young researchers in pursuing a research project are likely to spend time outside of school premises.
- Consideration given to what Year group and which students will be invited to participate in a young researchers project.

The practical steps will include:

1. Coming together as a group with a clear understanding of our roles and responsibilities and with an agreed code of conduct
2. Understanding what 'research' is and why we carry out research projects
3. Identifying issues or problems and settling on an agreed research topic
4. Developing a set of research questions or hypothesis based on the knowledge and facts we have available. Collecting information or data relevant to our research questions or hypothesis and choosing our data collection methods – quantitative or qualitative or both
5. Analysing our collected data – our findings and conclusions
6. Producing reports creatively to ensure widespread distribution and feedback to those who contributed to the research – could involve use of platforms through which young researchers can share findings and voice their concerns.
7. Speaking to the research findings and agreeing actions that tackle the original problem or issue identified.

PRACTICAL STEPS

The steps set out below represent a sequential research pathway with a recommendation to follow this order in session format. A minimum allocation of one hour for each step will result in some 9 or 10 hours of research preparation – arranged within the contingencies of staff time and student timetabling. However, what is recommended here is a 'sandwich' type progress through the steps with time spent out of a classroom setting practising some of the main tasks associated with each topic – for instance, in conducting face-to-face interviews; a blend of theory and practice.

The toolkit relies upon the experience, skills and knowledge of young researchers, teachers and organisations – it is not a script to be delivered. Teachers are invited to adapt the contents of each of the listed steps and arrange settings and duration to meet local needs and circumstances.

The Step sessions follow a format:

- A description of the main session heading
- The aim of the session
- A session plan including action, method and materials (the supplementary materials that are referenced are to be found in the 'Supplementary Resources' section in the second half of this toolkit)
- At the base of each session plan is a Box Creative addition that presents some suggestions for adopting a more imaginative and creative approach.

Each session should begin with a brief review of the previous session and end with a summary of what has been covered. At agreed intervals the session review will constitute a more formal evaluation – a judgement of progress and any issues arising and/or changes needed.

STEP 1. COMING TOGETHER

Description

This is the first formal session of the programme and is crucial in setting the tone and approach overall. It assumes that the prior recommendations (see above Method section) have been addressed.

Aim

This session aims to bring a young researcher group together with common understanding on the programme, the expectations as well as obligations of participating, and agreeing a group code of behaviour.

ACTION	METHOD	MATERIALS
1. Outline of the programme. Confirming group membership, expectations and obligations	Discussion confirming who is involved and their expectations. Teacher presentation and agreement on the programme. Outline of programme content	List of group members Copy of programme schedule (see supplementary resources 1A)
2. Agreeing code of conduct in light of research values	Open discussion on group rules and codes of behaviour led by group members	Agreed behaviours copied and subsequently formally adopted by the group. Examples of codes of conduct (see supplementary resources 1B) Examples of consent forms (see supplementary resources 1C)
3. Review of likely research topic(s)	Discussion with broad review e.g. **Local** (community, town, city) e.g. safety, youth services, environment **Personal** – e.g. relationships, mental health. **Global** – e.g. climate change, discrimination (BAME),	Group consensus on what might be a research theme or topic.
Box Creative: widen consultation via leaflets/posters, school website, presentations at assembly/ year groups, inform parents, encourage diversity of research team, make community links, invite in interesting speakers, code of conduct as a signed (teacher too) charter, establish links with local university, hold an event associated with research choice e.g. housing – build a house in large blocks, transport - bring in local bus, relevant speakers/presentations.		

STEP 2. WHAT IS RESEARCH?

Description

This session addresses the meaning of 'research' in its simplest as well as more formal approaches and agreeing what issues or difficulties might be encountered and how to respond. Primarily, it is something young people can do together.

Aim

This session aims to encourage an understanding of research as a feasible method of investigating or finding out – an activity that young people can organise and carry out.

ACTION	METHOD	MATERIALS
1. Exploring the meaning of 'research'	Group discussion perhaps cascaded from pairs to whole group	Note conclusions for summary definition(s)
2. Reviewing what 'young researchers' have achieved	Viewing/reading The JMA Young Researchers – a look at how and what they achieved. Group discussion on their conclusions and how they may best proceed.	Film/video and photographs from JMA. Examples of research activities e.g. in aspiration research. (see supplementary resources 2A) Presentation by Young Researcher(s) if feasible.
3. Agreeing a topic(s) for the research programme	Discussion in light of JMA young researchers - confirming group research topic and highlighting main or key questions	Teacher/scribe -notes decision(s) about topic and group priorities re: finding out more.
Box Creative: carry out rapid peer based survey with single or few questions e.g. what did you have for breakfast and note all lessons learnt and any issues or surprising findings – return conclusions to wider school, draw conclusions from JMA young researchers – invite to make presentation, thoroughly question/challenge chosen topic (maybe external independent adviser or agency e.g. Study Higher), use checklist to test chosen topic e.g. what resources, when it happens, what time available, deadline, ethics, who helps/supports, what training will young researchers need, how do you record progress e.g. use of photo and film		

STEP 3. THE RESEARCH TASK

Description

This session confirms the last session's decision on what to research and what the group concludes about the key issues they will tackle.

Aim

This session aims to explore the group's research topic key questions and arrive at some hypothesis or research questions to guide their research methods.

ACTION	METHOD	MATERIALS
1. The research topic and what will guide the investigation	Discussion to arrive at an agreed research questions or hypothesis (the group's explanation of the main topic issues to determine the research methods)	Note the group's hypothesis 'We believe that the issue or problem is explained by...' or research questions such as, 'What are young people's views on growing up in their local town?'
2. Reviewing examples of research topics, research questions and hypotheses	Group review of notes, discussion and conclusions	'Research questions and Hypothesis' Notes provided (see supplementary resources 3A)
3. What/who is to be researched	Discussion to list what exactly is to be investigated. Review the facts we can gather from existing research, and consider the research focus (what and who we will investigate). A vital step once students have settled on an issue and noted their own ideas and what others say. Session should finalise the topic and key elements in the research task – what data are we looking for.	Teacher/scribe - note group's conclusions about investigation list. Use the Internet (e.g. Google Scholar) for useful sources – to develop students own thinking and a wider context of understanding.

Box Creative: make use of Internet e.g. Google Scholar, review external data sources e.g. ONS and ward profiles, other local research, request local university assistance e.g. student intern, student union, university researcher, invite in relevant speaker/organisation engaged in similar research, announce choice of research to school including Head, encourage interest and participation in school – regular reports e.g. school newsletter/website, be thorough on what others have found out and always address the wider context of the research topic.

STEP 4. RESEARCH METHODS

Description

This session looks at different ways in which data may be gathered in line with the agreed hypothesis or research question – what facts are required and how to collect them.

Aim

This session aims to look at a range of research methods – quantitative and qualitative.

ACTION	METHOD	MATERIALS
1. Quantitative and qualitative methods	Discussion based on supplementary resources 4A – to understand the range of methods from questionnaires (quantitative) to focus groups and participatory (qualitative)	Notes on research methods (see supplementary resources 4A)
2. Selection of methods to be used	From previous discussions what method(s) will be used to investigate the chosen topic – questionnaires can be a useful starting point. Also consider qualitative methods such as focus groups, case studies or visual methods using photos or drawings/maps - pilot a small focus group around a creative task	Teacher/scribe - notes on methods chosen Focus group guidance notes (see supplementary resources 4B)
3. Putting the methods into practice –with prior consideration of how to conduct an interview, survey or focus group with due regard to safeguarding and ethics.	Devising a simple but topic relevant questionnaire – setting out (in school or outside) to complete the questionnaire.	'Conducting research interviews' (see supplementary resources 4C) 'Compiling a research questionnaire' (see supplementary resources 4D)

Box Creative: carry out mock interviews and record (with permissions) via video or photography, review JMA interviews, use games to generate responses e.g. JMA aspiration game, pilot research in school setting or outside if possible, rehearse focus groups led by young researchers, list all ethical requirements as a code of practice, engage relevant agencies including Study Higher, invite representatives (e.g. councillors, police, community workers) to answer questions in a public panel (questions by young researchers), always evaluate lessons from data collection methods, organise wider community/school conferences/seminars to further the research.

STEP 5. ANALYSING DATA

Description

This session looks at the data collected in the pilot research exercise – this should be available in an accessible format. For example, focus group discussions and interviews need to be written up, and it is helpful to record questionnaire returns in a spreadsheet.

Aim

This session aims to develop skills required to organise data and how best to scrutinize and analyse the collected data.

ACTION	METHOD	MATERIALS
1. Data entry – GDPR and spreadsheets.	A practical exercise in locating data collected in spreadsheet format, or else writing up what people said during interviews or focus groups	Collecting and recording data (see supplementary resources 5A)
2. Representing data.	The data collected previously can now be represented in a variety of formats – from bar charts to case study or focus group reports	Supplementary resources 4A and 4B apply here
3. Analysing the data.	Make use of supplementary data (5B) to help the group to carry out analysis of different data types	How to analyse data (see supplementary resources 5B)
Box Creative: select data section and invite professional help with analysis e.g. university or agency (Study Higher) researcher, devise poster size presentations of data in a range of formats for display, include video/film and photography as evidence, conduct focus group rehearsals with peer groups – record and review (with permissions), make sure conclusions are backed by evidence, be clear about data entry and spreadsheet methods including confidentiality and anonymity, be rigorous about GDPR.		

STEP 6. PRODUCING AND DISSEMINATING REPORTS

Description

This session considers how best to turn data conclusions and findings into summary reports for dissemination.

Aim

This session aims to encourage young researchers to present their research findings in an effective style to ensure that those who responded to the research project receive back the information they contributed and that a wider and relevant audience also receive the research report.

ACTION	METHOD	MATERIALS
1. What should a research report look like	Group consideration of the format of the report including format e.g. booklet or leaflet, photos/diagrams and how best to present it for impact and readability	Examples of other research reports - via Introduction link
2. Production of the report	Having available resources is important – budget availability. Once established group decision required	
3. Dissemination – spreading the report and building partners or agencies or individuals able to assist in action planning (Step 7)	How will the report go and how should it be publicised – making use of creative methods to get the conclusions and recommendations across e.g. household leaflet, panel presentations - to important policy makers, invited audience to dissemination conference, targeted delivery to relevant audiences. The dissemination should also be a productive method for recruiting partners and allies well placed to further or support the report recommendations	Supplementary resource 6A provides examples of how best to disseminate the report(s)
Box Creative: ensure all those who helped to generate data receive research report with thanks, consider best format for distribution including household delivery in a target area (Post Office very helpful here), design a summary leaflet/brochure for easier delivery, organise a dissemination conference that's accessible and inclusive, design a display or gallery/exhibition of research records e.g. photos, video, share with local library, turn the dissemination into an event e.g. if about transport hold a cycle event, if about climate change locally invite Friends of the Earth to lead an event, carefully evaluate the research to draw lessons and look to future research, seek endorsement from local university and Study Higher.		

STEP 7. ACTION PLANNING

Description

This session looks at what actions may be planned to gain some change derived from the research findings.

Aim

This session aims to encourage young researchers to use their research to bring about positive changes using careful and feasible action planning.

ACTION	METHOD	MATERIALS
1. What is an action plan?	Group discussion to turn the report recommendations into a set of plans that may be put into action. The group should be aware of the limits to what actions may be undertaken.	Action plans (see supplementary resources 7A)
2. Implementing and sustaining action plans	Preparing an action plan with partners and other helpers with some commitment to necessary resources and time phased implementation.	

Box Creative: note all suggestions from STEP 6 events to draw out recommendations, are the recommendations for action backed by the research findings, list all agencies/organisations who will be interested in the recommendations and able to assist, should there be further research, ensure that action plan is agreed by all participants – especially school members, match action plan to available resources, if possible set up a group of school and local allies able to lead an action plan and to monitor its delivery.

YOUNG RESEARCHERS **TOOLKIT**

SUPPLEMENTARY **RESOURCES**

A series of additional toolkit materials to support the research programme

YOUNG RESEARCHERS TOOLKIT
SUPPLEMENTARY RESOURCES

STEP 1– COMING TOGETHER
1A Copy of programme schedule

STEP 1. COMING TOGETHER
This is the first formal session of the programme and is crucial in setting the tone and approach overall. It assumes that the Prior Recommendations (page 6) have been addressed.

STEP 2. WHAT IS RESEARCH?
This session addresses the meaning of 'research' in its simplest as well as more formal approaches and agreeing what issues or difficulties might be encountered and how to respond. Primarily, it is something young people can do together.

STEP 3. THE RESEARCH TASK
This is a session that confirms the decisions made in STEP 2 on what is to be researched and the key issues or concerns they intend to tackle.

STEP 4. RESEARCH METHODS
The different ways in which data may be gathered – in line with the agreed hypothesis or research questions. What facts are required and how to collect them.

STEP 5. ANALYSING DATA
An examination of the data collected in the research exercise – this should be available in an accessible format.

STEP 6. PRODUCING AND DISSEMINATING REPORTS
How best to turn conclusions and findings from the data collected into reports or presentations for giving out or distributing.

STEP 7. ACTION PLANNING
What will be done to gain some change or make a difference as a result of doing the research.

STEP 1– COMING TOGETHER
1B Examples of codes of conduct

A Code of Conduct, sometimes called 'ground rules', is a set of standards setting out how we as members of our research group agree to behave. It includes how we behave towards each other and to others we come into contact with whether in or outside of our group.

The Code of Conduct aims to ensure that we all act in line with the values and the aims we have agreed as a research team.

Our Code of Conduct can include a range of standards – for instance:

- Our personal conduct such as being honest and open.
- How we behave in our meetings – respecting each other, being on time.
- Ways in which we resolve our differences.
- Listening to others, not interrupting and not talking over others.
- Challenging any behaviour which has damaging or hurtful effects.

WRITE OUT YOUR OWN CODE OF CONDUCT:

STEP 1 – COMING TOGETHER
1C Consent form

The Consent Form below is an example only. It is intended for those who have agreed to take part in a focus group (see STEP 4 Research Methods). Participants should be aware of what the focus group is about and why it is being held before signing the form to give their consent to taking part.

CONSENT FORM

Please read this form. If you are happy to participate in the focus group please sign below.

1. I consent to participate in this focus group which aims to ..... I understand that the general purpose of the session is to focus on..... We do not investigate private, personal or distressing matters and you may signal at any time your refusal to join in discussion and you may leave the group at any time if you wish.
2. Focus group discussions are meant to be informal but are usually guided by a group facilitator who will follow themes or topics associated with the broad aims of the focus group session.
3. I understand that I will be asked to participate in the group discussions but anonymously. Any recordings of the session will not name me and I also understand that the group discussions as regarded will be stored in a secure facility only for the period of the research programme.
4. My decision to consent is entirely voluntary and I understand that I am free to withdraw at any time without giving a reason.
5. I consent to the presentation of the results of the research as long as the participant information is anonymous.
6. I understand that I can ask any questions of the focus group leaders about the research and my participation.

I have read and understand the explanations given here and I voluntarily consent to participate in the focus group.

SIGNATURE .....

NAME .....

DATE .....

STEP 2 – WHAT IS RESEARCH?
2A Young Researchers at John Madejski Academy (JMA)

This section presents some examples of research undertaken by students at the JMA

THE WELCOME HOME JMA EVENT

This was the first major event that the JMA Young Researchers developed. The event was sponsored by Bewley Homes and developed with the help of the University of Reading and the Whitley Researchers. Our group was made up of students who had a wide range of interests. Some of us liked to organise, some liked to help out and others liked to take photographs. All of us had a role to play. We got a lot of interest from teachers and students who all asked lots of questions about what was happening. This helped us to ask them questions about what they thought a good home was.

OUR SCHOOL ENVIRONMENT

We all liked photography, so we spent quite a few of our first sessions on exploring our school. Once we had the pictures we would discuss what the images meant to us and what they might represent. This was a good way of getting ideas about what was important to us.



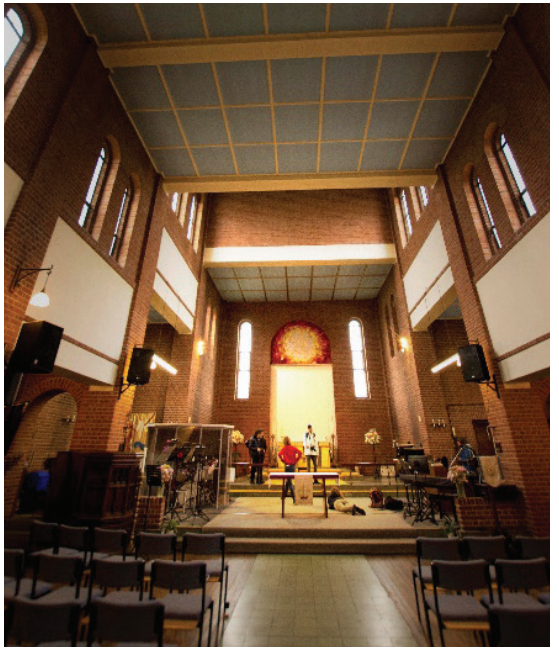

US

We also explored ways of using photography creatively to explore our own identities and how they are sometimes hidden.




AROUND WHITLEY AND READING

We went on trips around our local community. This involved taking our cameras out and documenting the local area. Our teacher had arranged for us to visit some of the local community centres such as the church, the boxing club and the Whitley café.



THE ASPIRATION GAME

We developed a game called The Aspiration Game. This is based on Snakes and Ladders with ladders enabling the player to advance whilst the snakes mean the player loses places. We also added symbols to each square. We could then have a conversation about what each symbol could represent in life as well as the chances that enable us to advance or hold us back in life. This was really popular with students at JMA and even more popular with children at the local primary schools.

TALKING TO COMMUNITY LEADERS

We organised a meeting with representatives from the groups who lead our community. This included the police, the council, schools, church groups, the health service, the boxing club and many more. We also invited parents and any other members of the local community who wanted to attend. The large room was full. We photographed and recorded the event. We Young Researchers questioned the groups and lead the discussion.

IN THE NEWS

Our work attracted the attention of regional news including ITV and the BBC. We were interview for both television and live radio broadcasts.

PRESENTING TO GROUPS AND CHARITIES

We continued to visit influential groups to tell them about our work.

FUN DAY

We helped to organise a Fun Day. The idea was started by parents of students who were involved in the Young Researchers and with the Whitley researchers, so it was good to combine our networks. During the day we carried out more research tasks. By now we were confident with what we were doing and could organise it pretty much on our own. The fun day was really successful and attracted many hundreds of people.

THE NEXT GROUPS

We are older now but the work to change our community for the better goes on. We are still involved in research and have more opportunities to come but we have also worked to establish new groups of Young researchers both at our school and with other schools and colleges in our area.

> I have really enjoyed my time as a young researcher. I have loved hearing people's different opinions and perspectives and showing that having a voice is extremely important: your opinion matters. The past couple of years have shown me that if you want change you need to be determined and fight for it. My main aim was to help young people have a voice and to always have an opinion no matter what age, race or gender. I never realized how big this project would be and seeing the outcomes makes me proud to be a part of it.

STEP 3 – THE RESEARCH TASK

3A Research questions and hypothesis

SUMMARY

The research task is a description of what the group will be investigating or finding out about by collecting relevant facts. However, what are the 'relevant facts'?
This is where having research questions or a hypothesis is so useful. So what is the difference between the two?

A hypothesis is a supposition or proposition assumed for the sake of argument; it's a theory to be proved or disproved by reference to facts; a statement that expresses a judgement or opinion; a temporary explanation of anything until the facts are established. A research question is a question that your research wants to address. It is useful for when you want to investigate different views, attitudes, experiences or feelings about a subject e.g. what are young people's experiences of lockdown?

Research questions are often used in qualitative research, such as interviews or focus groups, whereas a hypothesis often involves gathering quantitative data in questionnaires and surveys.

AIM

This resource aims to explain the meaning and importance of having a hypothesis or research question as a foundation upon which to base the research tasks.

NOTES

Let's assume that your group has chosen a topic as a research project. It may be an issue of common concern or anything that you find interesting or challenging. One issue might be the impact of climate change where you live or lack of youth facilities and something of interest might be access to public transport or why some young people dress differently from others.

You will have a clear statement of what you are going to research AND either a research question(s) or a hypothesis – that is, you will have a judgement or opinion that explains – at least for now – what it is your group will be researching. One statement might generate several hypotheses but beware the more hypotheses the more research you will need to do. One or two agreed by the group should be sufficient. Here is an example:

Statement: 'There are too few facilities for teenagers in our town'

Hypothesis: 'The local council is not interested in young people'

In the Statement there is a clear assumption about lack of youth facilities and the explanation or hypothesis is that the local council isn't interested in young people. This hypothesis will now guide what questions you will be asking and who should answer these questions. And how the questions will be asked e.g. anonymously in a questionnaire or face-to-face in an interview. This is your research task. It is important when planning your research to check out the information already available on the subject, and to know exactly what your research intends to add.

EXERCISES

Here are several statements or assumptions: most old people are lonely, mental ill health is to do with a person's age, a healthy diet keeps you fit, most young people have no aspirations, the world is a

better place because of religion, money brings happiness, young people cannot change things, the bus service round here is rubbish, lonely, try a team sport.

For each of these statements or assumptions prepare one or two hypotheses you can agree on as a group.

REFLECTION

Complete the following sentence: What I learnt from having a hypothesis .....

STEP 3 - THE RESEARCH TASK

3B Ethical research

Ethical research is moral research – it makes a clear distinction between the right and the wrong way of doing research.

It also means being responsible to all those who take part in the research – making sure their physical, social and mental wellbeing is not damaged in any way by the research.

Those taking part in the research must give their consent and know what the research is about – their co-operation is voluntary and they will be clear about what is expected of them. If you are researching with young people under 16 then their parents will also have to provide consent for them to take part.

We must guarantee anonymity and confidentiality – we must respect their right to privacy and be clear about what is happening to the information we collect; data protection is vital.

We must also as a team keep to any legal, health and safety requirements – for instance, support each other and work in pairs, not alone.

For each of the headings below give some examples of ethical steps you might take:

BEFORE WE DO THE RESEARCH

1

2.

3.

WHEN WE ARE DOING THE RESEARCH

1.

2.

3.

WHEN WE HAVE FINISHED OUR RESEARCH

1.

2.

3.

STEP 4 – RESEARCH METHODS

4A Notes on research methods

This resource presents a brief overview of different research methods – the varied ways in which data is collected to meet the aims of our research project.

Data collection divides into two different but very important groups. Your research method or methods will depend upon which group you decide to use to collect your data. The two groups are:

- **Quantitative data**
- **Qualitative data**

Data are information items sometimes collected in the form of numbers; for instance, 34 students in our school own motor bikes. Data can also be in the form of words, what people have said, or they can be visual like photos or drawings. A single item or piece of information is a datum.

QUANTITATIVE DATA

This is in the form of numbers. It is about measuring and collecting data usually from larger groups of people. It is a method that helps researchers to be impartial or neutral because you can measure responses using numbers. For instance, you can use quantitative methods to measure crime levels, or bicycle ownership or who are smokers or non-smokers. The UK national census due to take place in 2021 is a quantitative survey which will measure items such as numbers of people in a household, their ages and whether they are employed or not.

You can use surveys or opinion polls to collect quantitative data or you might use observation – for instance, by recording how many cyclists are traveling on a particular road, or how many young people attend a youth club.

QUALITATIVE DATA

Qualitative data is usually based on the direct opinions or views of people – what they think or feel about an issue such as dieting or how they behave. How we understand our lives and the lives of other people is something that qualitative data aims to uncover. For instance, a qualitative research project might investigate what young people feel about the community they live in or whether they think social media is a good thing or not.

You can use a range of qualitative research methods such as case studies, in-depth interviews, focus groups, participatory, creative and visual methods. These methods involve fewer people than those who might participate in a quantitative survey.

STEP 4 – RESEARCH METHODS

4B Focus group guidance notes

WHAT IS A FOCUS GROUP?

A group of individuals brought together by researchers to discuss and comment on the subject of the research based on their personal experiences and opinions. Researchers collect the views and comments from the group conversation.

BEFORE YOU START YOUR FOCUS GROUP

1. Decide who to invite and how you are going to invite participants to attend – aim to recruit up to ten individuals.
2. You should be very clear about the purpose of your research and the theme or topic you will be discussing.
3. Make sure that participants know where the meeting will take place and when and for how long and that the room is warm, well lit, quiet, accessible and private. The seating arrangements – usually set in chairs in a circle –should be comfortable and spacious enough for the size of group.
4. You must also have a small team of people to manage the focus group session including a group leader or moderator, an assistant or researcher to support the discussion and a note taker. Sometimes sessions are recorded – with the permission of participants.
5. An effective focus group session will have a topic guide based on key issues you may have identified in earlier survey research. The session plan will be informal and open ended but don't cover too much and be ready to probe further e.g. Why or 'could you give an example' or 'tell us more about that'.

DURING THE SESSION

1. Welcome the group, introduce yourself and team – make sure Consent Forms are completed and that they understand the background to the meeting. You should also confirm some ground rules with the group e.g. listening and respecting views of others and not speaking over each other. Also confirm that any views expressed are anonymous and confidential.
2. Try to appear warm, relaxed and friendly.
3. At the start of the session discussion try a broad open question 'What do people feel about – Reading, growing up, what's for dinner – anything that eases people into talking.
4. You should be very alert to group dynamics e.g. look out for dominant characters, watch out for racist or negative comments, don't allow breakaway conversations, encourage quieter participants, be creative and given them an activity to work on together or in small groups and remind them of ground rules when necessary.

AFTER THE SESSION

1. Make sure you thank participants and let them know what happens next and ensure all data is collected and stored in a secure location.
2. People may want to offer help or further involvement – give them information to continue their interest.

STEP 4 – RESEARCH METHODS

4C Conducting research interviews

The face-to-face interview is the central activity when carrying out research – it is a fundamental part of any research project that sets out to explore how people feel or think about something of interest or concern. It is a key part of qualitative research projects.

Individual interviews may be part of a social survey (what people think about climate change), a case study (recording an individuals life experiences) or an in-depth investigation (searching more deeply into a person's attitudes or background). They may be conducted by one or two interviewers.

Consider the ethical priorities – ensuring that the interviewee's physical, mental and social wellbeing is protected, that they have given their consent (formally in a signed Consent form) and they know what the interview is about and what to expect. The interviewee's anonymity and confidentiality is respected, with assurances given about data protection and the interview environment meets health and safety requirements.

WE CAN THINK ABOUT THE INTERVIEW IN THREE STAGES:

- Before we do the interview
- When we are doing the interview
- After the interview

Here are some recommendations from a Reading-based group of young researchers in 2019.

BEFORE WE DO THE RESEARCH

- 'Make sure the questions are not offensive for some people'
- 'Think about how we will ensure participants understand the research beforehand'
- 'Make sure questions are 100% anonymous and confirm how this will happen'

WHEN WE ARE DOING THE RESEARCH

- 'Make sure you don't put yourself in danger or the participant'
- 'Keep the option to stop the research at any point for the participant'
- 'Make sure the participant feels comfortable – do they have any requirements to feel more comfortable'

AFTER WE HAVE COMPLETED THE INTERVIEW

What suggestions would you offer once you have finished the interview?

For instance: 'Don't share or talk about people' responses'

STEP 4 – RESEARCH METHODS

4D Compiling a research questionnaire

By now you will have decided what your research task is and what data you need to collect. What is needed now is a questionnaire – simply a set of written questions given out as part of a research survey. Responses to the questions will provide your data.

Remember that the numbers matter. Broadly, the larger the group the more credibility or reliability your survey will have. Having few respondents is likely to mean that your conclusions will not be regarded as trustworthy.

The type of questions you include in your questionnaire really counts. It is important to know what sort of question to include. There are basically two types of question:

Closed – these are questions that can only be answered with 'yes' or 'no' responses. Sometimes respondents are given a list of choices to tick. The choices are sometimes presented as a 'rating scale' which provides a range of options from 'strongly agree' to 'strongly disagree'.

For instance: 'Is he dead?'

Or 'Please say to what extent do you agree or disagree with the following statement:

I am satisfied overall with my life

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

Open – these are questions that cannot be answered with a 'yes' or 'no' response. Respondents are asked to give their opinion or views. These may be based on what the respondent knows or feels about a subject.

For instance: 'What do you want for yourself in the future?'

Or 'What political issues are most important to you and why?'

The more people you survey, the harder it is to process a lot of free comments. Tick boxes are easier to analyse, but you need to be aware that by providing suggested responses you potentially lead answers and lose information. It is best to allow extra comments whenever possible.

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REMEMBER:

- The answers you get depend on the questions you ask and how you ask them, so you need to be careful not to ask leading questions. Different options need to be presented with equal weight, and all options need to be available.
- Avoid asking two different questions in the same sentence.
- Ensure that your questions are really clear and cannot be understood in multiple different ways. Check out how different people understand them before rolling out the full questionnaire.
- Make sure you are collecting all the information you might need.

A typical questionnaire will have some indication of who is responsible for constructing it – perhaps the name and logo of the school or college issuing the questionnaire; a brief introduction to explain the purpose of the research; some assurances about confidentiality and anonymity; confirmation that questions can be left out (people need to know they can opt out of answering) and a declaration that data protection will fully apply. And close with a 'Thanks'

TASK: Construct a questionnaire of 4 questions only – two open ended and two closed – with a theme of 'Young people and climate change'

Try it out on your colleagues or class – what do you conclude about their views?

STEP 5 – ANALYSING DATA

5A. Collecting, recording and representing data

Collecting data – your research data can be collected in many different ways. We have looked at questionnaires with their open or closed questions – some questionnaires include both types. . Focus groups and case studies will also generate data – maybe in the form of written reports or voice or video recordings. You will also have given guarantees about anonymity and confidentiality and that you will protect the data collected in safe and lockable locations – such as locked office files.

Every precaution will have been taken in gathering together the questionnaires or group reports and in storing them securely.

Recording data – it is now time to enter all the data collected in such a way as to make it easier for you to analyse and represent. However, some data will be in the form of answers to closed questions e.g. 'yes' or 'no' or ticked options on a rating scale. These are quantitative responses – they can be quite easily counted and measured. This information can be entered into a **spreadsheet** (a computer based document that is arranged in rows and columns in a grid formation. Every question asked should have its own column, like headings along the top of a table. Underneath each heading you add the responses to that particular question, using a new line for every new respondent. Once all the data is entered, you finish up with a grid. Reading along a line, you can see how one respondent answered all the different questions, and reading down a column, you can see how all the different respondents answered one question.

Reports and recordings from focus groups or case studies should be available in clear and understandable format. Interviews or focus groups that have been recorded need to be written up or transcribed. The reports should include details such as how many attended, where, who facilitated, date and when. Your team members may meet to consider the reports with some agreement on the key points you are looking for – as a basis for analysis.

Representing data – there are many ways of representing data, for instance in graphs, bar or pie charts or frequency tables. You can use quotations from interviews and focus groups to highlight people's views and experiences. Case studies or `vignettes' can be written up to tell a story about someone's life history or journey. This will help with interpretation and analysis but also helps to inform a wider audience or group.

TASK: Here is a data package – how would you best represent it in graphic or picture form?

STEP 5 – ANALYSING DATA

5B How to analyse data

Write up your notes and any recordings from interviews/focus groups and gather any other information you have such as photos or drawings. If you carried out a survey, ensure you have all the responses recorded on a spreadsheet as described in 5A.

We now need to turn this grid of responses into useful information to help us to draw some conclusions about our research.

It is helpful first of all to write up all the information we have:

1. If you carried out a survey, write down how many people filled in questionnaires altogether and where, when and how were they interviewed. Write down who they were. For example: The range of ages included. The percentage of males or females. The ethnic groups represented. Which groups of people were missing from this analysis?
2. Next write down how your participants responded to each question in your survey:
   - If you have tick box answers, what percentage of respondents ticked each answer? Write down the question and the different answers in order of importance, noting the percentage of respondents responding in each way. In this way you can work out how most people feel about an issue.
   - If you have open answers, try to categorise the answers into broad themes. Then you can work out how many people subscribe to each theme (what percentage of the total), which gives you an idea of the key issues being raised. You can highlight these issues in your final report and pick out some key quotes that illustrate what people are trying to say.
3. Taking your analysis to the next level, you can see if people responded differently depending on their social group. For example, if you are gauging the level of interest in football, is the average response of men different from the average response of women? Or if you are looking at how often people go to fast food restaurants, do the responses of high-income people differ from the responses of low-income people? There is much to learn from such analysis, but also some pitfalls to watch out for, in order to avoid jumping to the wrong conclusions...
4. If you carried our interviews, focus groups or creative methods, you need to look for common themes in your notes, visual data or transcripts - this is called 'thematic analysis'. Make a note of important quotes, images or case studies that highlight views or feelings.

PITFALLS TO AVOID:

- Your data is only as good as your questionnaire or interview. If you have asked leading questions or hinted at possible answers or restricted the answer options this will affect the kind of responses you get and your results may not reflect the truth.
- You can't claim to represent what the average person thinks based on just

a few responses. The more people saying the same thing, the more confident you can be, but your results still only tell the story of those you have interviewed and you need to think about the people/social groups you might have missed.

- The total number of people you need to interview or survey depends on the subject, on what the total population of that group is (a bigger group of people requires more questionnaire returns) and on the diversity of the group (if people are very different you need to do more interviews). The best community surveys involve dozens if not 100+ responses.
- You have to be especially careful when comparing what sub-groups in your data think (for example, people of a particular age category or ethnic group). If there are less than 10 people in a survey sub-group, you should not be drawing any conclusions at all.
- Just because you find that one thing relates to another, you cannot draw conclusions about cause and effect. For example, if I find that happy people are more likely than sad people to visit shops, does this mean happy people like to shop? Or does shopping a lot make people happy? Or is it actually all dependent on a third factor like income, with income affecting both happiness and the inclination to shop? The data can give us information, but we need to be careful about the way we interpret it to get our story straight.
- We have to watch that we are not picking data to support our own theories instead of presenting the true message. It is all too easy to present data in such a way as to exaggerate or minimize evidence to fit the story we want to tell.

STEP 6 – PRODUCING AND DISSEMINATING REPORTS

6A How to disseminate or spread your reports

Your reports contain the information you collected in your research – the data which can now be described as evidence. Also, the conclusions you came to and the recommendations you suggest. Given the commitment you gave and the efforts you expended on your research and not least its importance to you and your participants, you will want to ensure that the report does not gather dust on a forgotten shelf somewhere. You want it to be read and have some impact. So how best to get your research messages across? Here are some steps:

1. Make sure that your report is in its best shape – attractive, readable, graphic and properly structured from acknowledgements, content, executive summary, evidence presentation, conclusions and recommendations. The report may also be presented as a summary leaflet for ease of reading and delivery. You could also consider making a video, web-site or exhibition.
2. Identify who is most likely to find your report relevant and useful – it could be particular organisations or groups, individuals with common interests or needs or those with responsibilities to the community such as councillors or people who lead service organisations such as the NHS or schools.
3. Prepare a press release – your statement about the key points of your research including how and why you did it and your recommendations. It's for issuing to all media including radio, television and newspapers.
4. Most research is presented and disseminated via a conference, workshop or exhibition to which all those who took part in the research may be invited and any agency or organisation or key individuals who may find your research useful and even challenging. Care should be taken with the timing and the venue and how the invitations are best issued to attract attendance.
5. One important matter is that those who did the research – your research team – are involved in organising the programme for the conference, workshop or exhibition event and lead the presentations.
6. It might be possible to help with or support the implementation of your suggested recommendations. Research is about making change and you may look for others to help with bringing this about – in line with your recommendations for change. To help this an action or campaign with a range of partners and agencies could be established.
7. And if there's time and interest – what other research would you like to take on?

STEP 7 – ACTION RESEARCH

6A Action plans

Research can make a difference; it can bring about real change but it needs a helping hand. Action planning sets out to turn your research conclusions and recommendations into activities to bring about the change you want to see.

Action planning is all about agreeing what changes match the recommendations you have made in your report. The changes or actions can be put in order of importance – those you believe you must try to carry out and those that should or could be included.

How to decide your actions? One clear limitation is the time and resources you have as a group to put your plans into action – in other words, what is feasible or achievable? Once decided about your planned actions you may want to consider two things:

What resources such as time, materials, funds and helpers are available?

What might others offer? Perhaps individuals, organisations or groups who are or were involved in some way in your research. Maybe the organisations are providing the services or activities that are part of your recommendations – they may want to help?

The two considerations are really about bringing things together – people, organisations, groups and resources in common agreement about realising the recommendations. Action plans demand a united and shared approach – a co-operative partnership. One way of drawing the partnership together is through a mutual written plan that has the agreement of all members.

The basis of such a plan could simply be '5WH' – i.e. who, what, why, where, when and how. Apply this to each of your recommendations – as presented below:

WHO: Who is involved – you and others

WHAT: What will happen – what action(s) will be taken

WHY: Why will you take this action – for what reason(s)

WHEN: When will the action(s) take place – is there a deadline?

WHERE: Where will the action(s) take place – in or out of school

HOW: Like WHAT but focus on what you need to make the action happen.

Try to prioritise your recommendations and don't forget to check on how you are progressing – Are we following our plan? What works well? What does not work and why? Are there any changes we should be making to improve the outcome? This is known as monitoring and evaluation.

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NOTES

YOUNG RESEARCHERS

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