

# **‘I DID IT MOSTLY BY MYSELF’: MYSHOUT! AND HOW IT WAS USED BY A 12-YEAR-OLD YOUNG RESEARCHER TO SUPPORT HIS OWN SOCIAL RESEARCH PROJECT**

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## **Abstract**

This paper offers a first-hand perspective on the utility of MyShout! – a web-based resource designed to support young researchers throughout the process of learning how to conduct their own social research projects. MyShout! differs from previous resources as it is designed with young researchers, for young researchers. We focus on exploring the utility of MyShout! for giving young researchers an opportunity to exercise agency over, and responsibility for, the process of learning how to become, and be, a social researcher. We report on the design and content of MyShout! and the second author (aged 13) reports on his experience of using it to help him to exercise personal responsibility for the conduct of an ethical research project into the use of violent video games amongst his peers. We suggest that future work might involve an exploration into whether learning how to be skeptical, ethical and systematic researchers has any impact on the wider lives of young people in terms of how they look at and evaluate the world in which they live.

Keywords: MyShout!, technology, self-directed learning, young researcher.

## **1 INTRODUCTION**

We report on a case study into how a twelve-year-old young researcher used MyShout! – a website designed to support young people who wish to undertake their own social research into a topic of their choice. In particular, we focus on investigating the extent to which it was possible for a young researcher to take responsibility for, and exercise agency over, his own learning about research process, skills and methods, and the conduct of his own research, with minimal adult intervention. To date, there have been several approaches to supporting child-led research in informal settings such as youth clubs or after-school clubs. Most of these approaches focus on the development of materials and activities that can be used by the adults who work with the young researchers; little attention appears to have been paid to the production of materials for use directly by the young researchers themselves. This means that the young people are necessarily reliant on adults in order to complete their research and that the potential for young people to exercise high levels of responsibility for, and agency over, their own work may be limited. The MyShout! website goes some way to address this as MyShout! was designed by the first author in collaboration with young researchers, for young researchers.

An approach to supporting young researchers has been to publish materials offering guidance to the adults who work with them. The adults read the books to learn about social research, and then run sessions, with young researchers, that are resourced by the activities suggested in the books. For example, [1] is written specifically for primary school teachers and [2] is written for adults who are supporting young people in a variety of settings. Other authors and organisations have adopted a similar approach (e.g. [3], [4] and [5]).

A second approach, adopted hitherto by the Open University’s Children’s Research Centre in the UK, has been for academic researchers to offer face-to-face research ‘training’ sessions for both adults and young researchers in a variety of settings and to follow this up with individualised online and/or telephone support for each of the young researchers (e.g. [6]). However, this approach is time consuming and labour intensive for the academics involved and can therefore be offered to only a limited number of individuals.

A third approach involves the development of materials for adults that can be used 'off the shelf', with very little prior preparation, to resource experiential learning ([7]) during after-school social research clubs i.e. the teacher develops their understanding of research process and research skills alongside the young researchers ([8]). The advantage of this approach is that it does not rely on the availability of a third party 'expert' and does not assume that the teacher has the time to read and prepare prior to after-school sessions with the young researchers. However, the adjustment of role expectations and the development of new power relations need to be carefully negotiated ([8]).

The success of all of the approaches described here (books for adults, face-to-face support by academic researchers, or experiential learning) is dependent ultimately on the availability of the young researcher's adult mentor. This has several implications: 1) the development of young people's research skills are tied to a particular time and place, 2) the young researcher has limited opportunity to demonstrate high levels of agency for their own learning and skill development (e.g. they need to be taught, by an adult, how to write a research question before they can go ahead and create their own) (see [6]), 3) if a young researcher is to maintain a high level of engagement and motivation, they are to some extent reliant on the availability of the adult to enable them to do so, and 4) there is the risk that, without careful consideration of how best to support the young researcher's own endeavors, adults might adopt a managerial role ([9]) and hijack the young person's research for their own gain (e.g. to meet institutional requirements) ([10]). Almost inevitably, timetable clashes or illness and absence mean that some young people and/or adults cannot attend all the planned research support sessions so the young person might fall behind, lose interest and, ultimately, drop out (see [11] for an example of this in an after school club). This is unfortunate because the young person's initial enthusiasm for learning new skills and for carrying out their own research may be reduced and/or extinguished. However, web-based resources that young researchers can use by themselves at home, or anywhere there is an internet connection, may offer them an opportunity to take more responsibility for their own learning and for the conduct of their own research.

The research question addressed in this paper is: Can young researchers exercise agency over, and take responsibility for, their own social research projects by working their way through the activities in MyShout! in their own time with minimal adult facilitation?

## 2 METHODOLOGY

A socio-cultural psychological theoretical approach underpins the current work. Vygotsky ([12]) argues that all learning is situated and mediated by cultural tools. In this way, cultural tools work to shape learning processes so the unit of analysis when evaluating learning is the individual-using-tools-in-context ([13]). The focus of the current research, therefore, is not on measuring 'outcomes' but on exploring how MyShout! can be used by young researchers in order to learn how to *be* a social researcher and *do* social research. A case study approach has been adopted as this allows the researcher to explore social phenomena in depth ([14]). In this instance, the 'case' is a young researcher – the second author of this paper. In Section 3, he offers his reflections on his firsthand experience of using MyShout! to support his own research.

### 2.1 Participants and setting

Richard was one of ten 12-year-old young researchers who attended an after-school 'social researchers club' in their school in central England and who used MyShout! to support their work. Also, an English teacher and a school librarian attended the club. Consent to take part in the evaluation of MyShout! was gained from the young people and their parents. Additional consent was obtained from Richard and his parents in order for him to co-author this paper, co-present with the first author at the EduLearn14 conference, and forgo his anonymity.

The young researchers attended four 90-minute face-to-face after-school sessions with the first author, the teacher and the school librarian. These sessions were designed to introduce the young researchers to the materials in MyShout! so that they could then complete the activities by themselves in their own time. During these sessions the young researchers had an opportunity to discuss any challenges that they had encountered and to enlist teacher support in, for example, gaining access to participants.

### 2.1.1 The MyShout! website

MyShout! is a password protected website that contains a range of activities designed to support a young researcher's understanding of research process, research skills and research ethics. It contains activities that teach, for example, how to write a research question, how to make a questionnaire, research ethics, how to analyse data and, crucially, when to do these activities and how they are iterative and interdependent. MyShout! is not designed to be a stand-alone tool - is it designed to be used alongside infrequent face-to-face and/or online/telephone support from an adult, who adopts a facilitative role so responsibility for carrying out the activities in MyShout! lies with the young researchers.

### 2.1.2 The structure of MyShout!

The overarching structure of MyShout! was informed by a representation of the research process that was developed and evaluated by the Personal Inquiry project ([15]). MyShout! consists of nine research phases that are presented across the top of the screen (see (1) in Fig. 1) – My Topic, My Question, My Research, My Method, My Data, My Analysis, My Response, My Shout and My Diary. Clicking on each phase reveals a range of relevant activities (see (2) in Fig. 1).

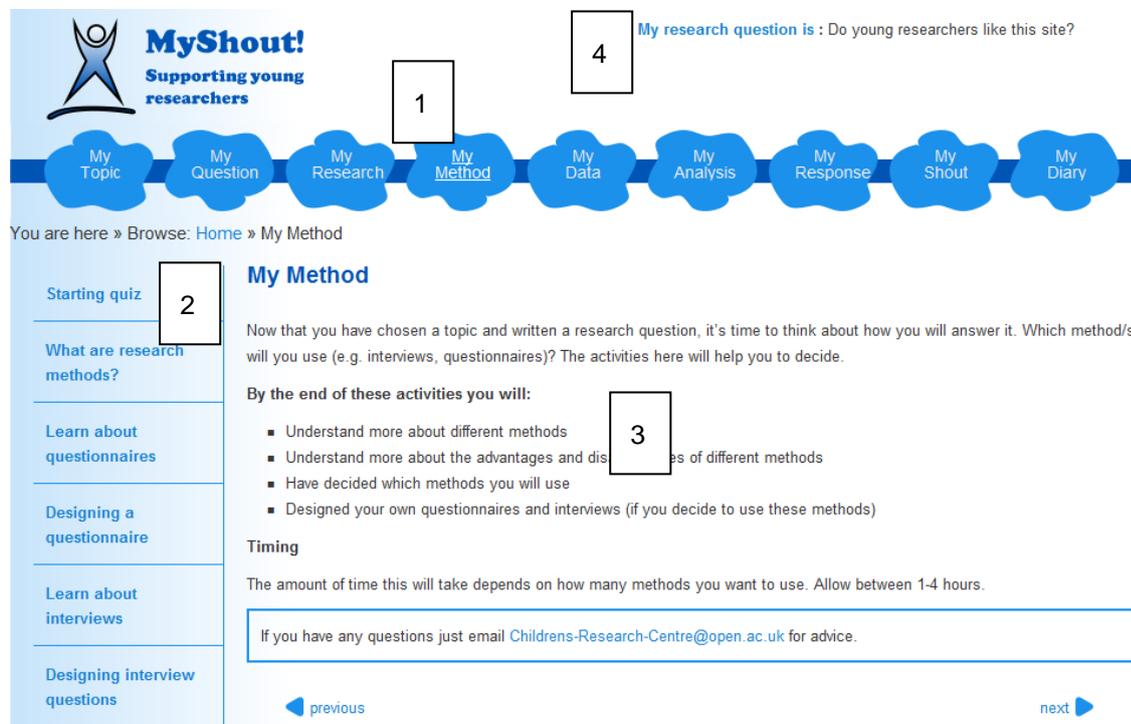


Fig. 1: The structure of MyShout!

### 2.1.3 The pedagogic design of MyShout!

The pedagogic design of MyShout! was resourced by the first author's experience as a producer of distance education materials. For example, each phase in MyShout! is accompanied by learning outcomes and an estimated amount of time the activities will take to complete (see (3) in Fig. 1). MyShout! includes a wide range of interactive learning activities to maintain engagement and motivation. These activities include:

- Multiple choice questions resourced with radio buttons and a reveal of the correct answer (e.g. 'which of the following research questions is biased?')
- Typing answers to questions in a text box, clicking OK and revealing the correct response (e.g. 'what is informed consent?')
- Typing draft questionnaire/interview questions into a text box and checking them against a check list
- The completion of sample questionnaires that incorporate a range of question types, to aid understanding of the types of responses these can generate

- Reading information that will resource decision-making (e.g. a description of a Likert scale and how the range of responses differ from those gained from simple yes/no questions)
- Documenting key research decisions and reasons for them (e.g. the research question, the young person's choice of method/s, and how they are going to disseminate their findings)
- Listening to podcasts, created by previous young researchers, that offer guidance, encouragement and accounts of their experiences
- The completion of interactive research process diagrams
- The completion of a research diary (that is also automatically updated with key research decisions so they are all accessible in one place)
- Downloading various editable consent form templates

Once a research question has been entered into MyShout! it appears at the top of every page (and is editable) (see (4) in Fig. 1).

#### 2.1.4 The content of MyShout!

The content was designed to support young researchers in undertaking research that is systematic, critical and ethical and was resourced by [2]. A brief overview of the activities within each phase in MyShout! is in Table 1.

Phase	Activities
My Topic	Choosing my topic
My research question	What is a good research question? Writing my research question.
My research	What needs to be done? When do I do it? What order do I do it in?
My methods	Learn about interviews. Designing an interview. Learn about questionnaires. Designing a questionnaire. Learn about observations. Recording observations. Learn about photographic data. Decide your research participants.
My data	Research ethics. My consent forms. Gathering my data.
My analysis	Different types of data (qualitative and quantitative). Analysing Likert scales, open questions, closed questions, photographs, observations.
My response	My response to my research question
My Shout	Choosing how to share your research. What should I include?
My Diary	Research summary. Free text entry.

Table 1: An overview of the content of each research phase in MyShout!

### 3 RESULTS: RICHARD WEBB'S RESEARCH AND HIS USE OF MYSHOUT!

In this section, Richard writes in the first person, in his own words. Screenshots are used to illustrate the work he undertook in MyShout! during the study period. The section is divided into five subsections; in the first four subsections Richard describes his attendance at a face-to-face session with the first author and his teachers, and his subsequent self-directed work on the activities in MyShout!. In the fifth sub-section, he draws some conclusions about his experiences.

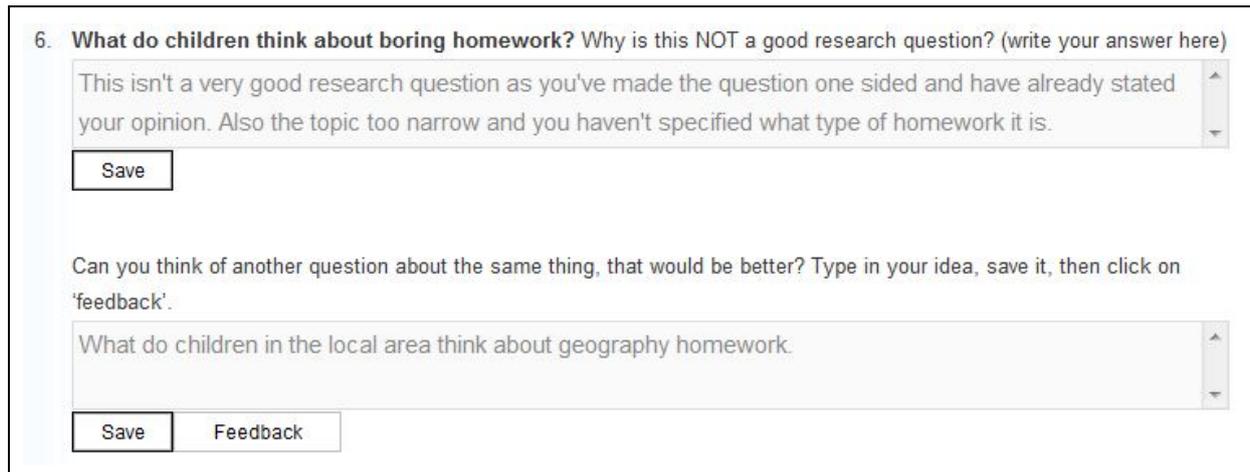
#### 3.1 Session 1

The first face-to-face session was an introduction so we knew what to expect. We took part in some activities that got us thinking about what research is, who can do it, why we do it, and what is meant by 'research ethics'. We looked at a fictitious article about why sometimes bread can be deadly (e.g. many criminals eat bread before they commit a crime!) to help us to understand why we need to be critical thinkers. Also, we learned about what being 'systematic' means. We looked at some research done by other people in my school the year before [during the development of MyShout!], so we could get an idea of what was involved. We were introduced to MyShout!, just enough for me to understand what I needed to go away and do by myself at home.

At home, I chose my topic and typed "video games" in the appropriate text box in the 'My Topic' phase in MyShout! I chose this because at the time violent video games was a regular topic of conversation in my friendship group and I did not understand the appeal of violent games. I was interested in finding out why it was the case that others liked them. Having the freedom to research whatever we liked meant that I was more interested and enthusiastic towards my research.

In MyShout! I then learned about research questions in the section 'My Question' by studying poor questions and saying what made them poor and converting them to good questions (Fig. 2). This activity was helpful as it developed my understanding of good research questions and led me to create my own. I then entered my own research question: "Do violent games appeal more to key stage three students and if so why?" (in the UK these students are aged 12) and checked it against a check list.

It was a good feeling to begin my research. It boosted my self-confidence and it made me feel more mature.



6. **What do children think about boring homework?** Why is this NOT a good research question? (write your answer here)

This isn't a very good research question as you've made the question one sided and have already stated your opinion. Also the topic too narrow and you haven't specified what type of homework it is.

Save

Can you think of another question about the same thing, that would be better? Type in your idea, save it, then click on 'feedback'.

What do children in the local area think about geography homework.

Save Feedback

Fig. 2: My work in MyShout! on learning about how to write a good research question

Next, I went to the 'My Research' part and did various activities that helped me to understand all about how to do research. In one activity I did a tricky diagram of research phases where I had to draw arrows to show the order of the events taken in the fictional paragraph above the diagram (Fig. 3). I thought this activity was OK as at first it was enlightening but since there was so many of them it eventually became repetitive and slightly tedious. Now that I look back on it I understand its purpose but at the time I also had to fit it in with many other things I do after school. The activity taught me that in order to be good researcher there are certain things that I need to do and they are all interlinked.

### 3.2 Session 2

This session was about research methods but to start off we shared our research questions with the rest of the group. It was interesting to find out what everyone else was doing as there was a wide range of topics. We talked about the research methods in MyShout!: questionnaires, interviews, photographs and observations. We discussed different types of interview and questionnaire questions e.g. open questions, closed question, and the scales you can use in questionnaires such as Likert scales and yes/no answers.

Then, we worked in a group and tried to think up some ways that we could use all four methods to answer the research question: 'what do pupils in my school think about the computer café in the school library?' This gave us practice for what we needed to go home and do by ourselves.

At home, we had to do the activities in the My Method and My Data parts of MyShout! This looked like a lot of work because we had to decide which methods we wanted to use, make our questionnaires etc., print out consent forms and collect our data. I found it best to do it one step at a time, following what is says in MyShout! First, I did the activities in the 'My Methods' part. I decided that I wanted to find out peoples' opinions about violence in video games and decided that questionnaires would be the best way for answering my research question. I then worked my way through some activities about

**Description 1:**

Josh and Dan are doing some research into school uniform. Their research question is 'what do children in my school think about school uniform?' They decide to film different children talking about school uniform. They make some notes in their diary about why they decided to do this. They borrow a video camera and make a start. When they have filmed 4 people, they make some notes in their diary and realise that filming is not a good idea because it would take them many hours to talk to enough students. So, they change their minds and decide to make a questionnaire instead. They give the questionnaire out to 40 students. They write about how this went in their diary. They then tally the results and their response to their research question is that 75% of children like their school uniform. They make a poster showing what they have done and show it to the school Governors.

Where would the arrows be? Click on the blue blobs in the right order to draw arrows. If you want to start again, just click on 'reset'. Click on 'save' when you have finished (you can change your mind later if you like).

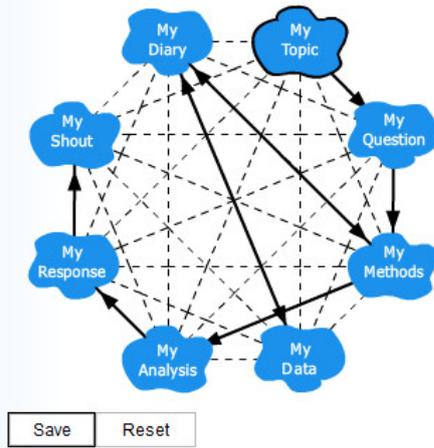


Fig. 3: Me learning about the research process in MyShout! by drawing arrows on a diagram

the positives and negatives of questionnaires, and different types of questionnaire questions (Likert scales, numerical responses, yes/no/don't responses and open ended responses). I then chose the type/s of questions I wanted to use, and wrote down a rough version of my own set of questionnaire questions (Fig. 4).

I wondered about whether I should use interviews as well as questionnaires as this meant I would be able to understand my participants' opinions in more depth. I also thought that it might be a good idea to use observations and photographic data. I thought it would be a good idea to watch them play a violent video game and record their reactions. Also, I contemplated the use of photographs as evidence for peoples' excitement when playing video games. In the end I decided not to do all this, and just to do questionnaires, as I did not have enough time. It was a shame but I learned about being realistic and it was useful to learn about these different methods. It was something I felt would be useful in the future. At the end of the day the decision was mine and I was working independently.

I then decided about the participants I would use in my research (Fig. 5). The next thing I did was make my questionnaire. I used my draft questions in Myshout! and made a questionnaire in a word processor. Also, I used the consent form from MyShout! and edited it a bit so it was right for me. Then I emailed the questionnaire and the consent form to the first author to check that everything was in order. Once the questionnaire and the consent form were good enough, my teacher photocopied the final version for me to give out to my participants. My final questionnaire questions were, for example:

- Why do you play violent video games?
- Do your parents keep check of what video games you play?
- Do you prefer violent video games to PGs, for example? (PG means Parental Guidance in the UK)

**Your choice of question type**

Have a think about the types of questions you want to use. You could use more than one type depending on what you want to find out. Remember: whatever you use **MUST** help you answer your research question.

Write down which types of questions you might use (Likert scale, yes/no/don't know, numerical or open):

yes/no/don't know for should be have age ratings for violent games; numerical for how often someone plays violent games when they go on their console. And open questions for a wide range of things.

Save

Write down why you chose these types of questions:

I chose these types of questions because they will come in very useful for me.

Save

OK, next write down the questions or statements you think would be good to ask. They **MUST** help you answer your research question. You should aim to have at least ten questions or statements and no more than around 15. If you want to do structured questions, write down the choice of answers as well.

when you go on your console?( If you have one). Numerical. Do you think violent games should have age ratings? Yes/no/don't know. Do you think violent games are better than cartoon games, for instance and if so why? Open ended. Do you want to start playing violent games? Open ended. (If they play violent games when did they start.) What's your opinion of violent games? Open ended. How many of your freinds play violent games? Numerical. How long do you think you could play a violent game for before getting bored? Numerical. Children should stop playing violent games and start playing cartoon games. Likert scale. Children should play violent games because it lets them get their anger out. Likert scale.

Save

Fig. 4: My draft questionnaire questions in the My Methods phase in MyShout!

I asked my participants to sign a consent form and to fill in my questionnaire. I enjoyed the collection of the data and looking at the results. I tried to make my questionnaires anonymous by asking participants not to write their name on the questionnaire but some people did. When I was handing out the questionnaires I was very proud because it was own research and I was finding out about something that I was interested in; it was my own research question. I had done everything myself, it was up to me. When I had collected all my data I was quite relieved that I'd managed to get it all done. Seeing it come to fruition was very rewarding.

6. How many people do you want to ask? (around 20 at least)

30.

Save

7. Where can you find the people you want to ask?

At school.

Save

8. Which 2 or 3 people can you test the questions on first? (nice, friendly ones!)

Friends.

Save

Fig. 5: Deciding my research participants in MyShout!

### 3.3 Session 3

At the third face-to-face session, I learned about tally charts for quantitative data and how to do a thematic analysis of the open-ended questionnaire responses. We started doing some analysis in the session. I started to tally the closed responses from my participants, and to carry out a thematic analysis of the open-ended questions on my questionnaires. The thematic analysis was hard as I had never done it before but I soon got to grips with how to code my questionnaires and how to sort the codes into themes. I had to tally things up several times as one mistake meant that numbers did not add up. This was quite frustrating but I did it in the end. I finished this work at home. Once I had finished my analysis I started to make some charts in Excel to represent my data (Fig. 6).

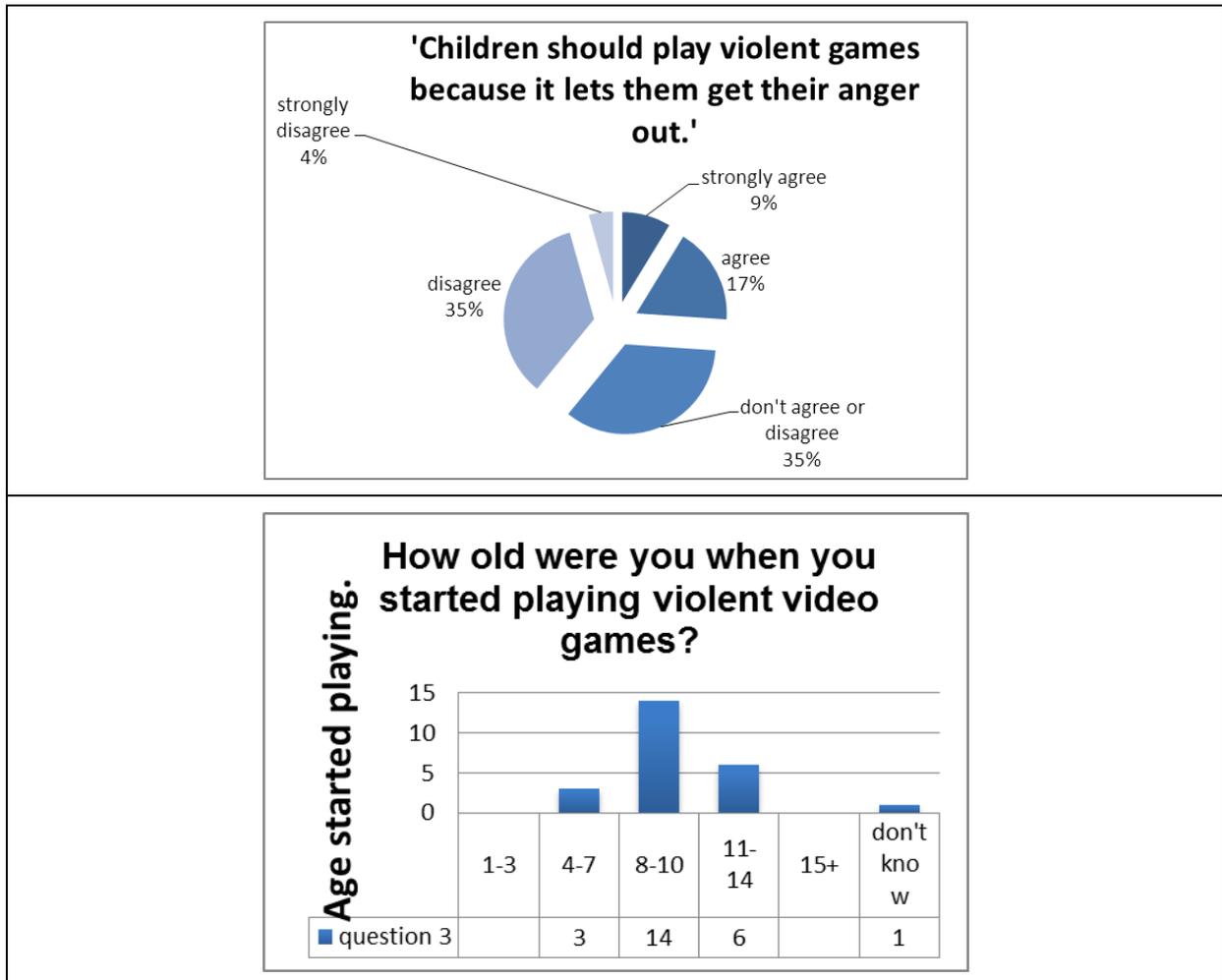


Fig. 6: Two of my charts

I was quite shocked that so many children were playing violent video games between 8-10 years old and some of them began at 4-7 years old. One thing I found out was that most of my participants said that they knew the difference between violence in games and violence in real life. However, despite this nearly 70% said their parents keep track of what violent video games they play. This made me think that parents are wary.

At home I have a computer in the living room that I used for MyShout! I was lucky as I had access to the computer most of the time. I had a laptop as well, that I used to record questionnaire data on in Excel. Sometimes research can be quite frustrating, especially when it was difficult to get adults to give out questionnaires for me at school. My mum was very supportive. I think it would be good if MyShout! had some cautions in it about how research can be difficult at times.

### 3.4 Session 4

During session four, I started to make some Powerpoint slides that I could use for the presentation to parents and the young researcher's symposium at the Open University. I was given a basic description of what I needed to include in my slides so that the audience would have a good understanding of my research. I continued to work on my slides at home and in school. My teacher helped me check my slides for spelling mistakes etc. I went to after-school presentation practice sessions run by the teacher and practiced with my parents at home as well. The two presentation events had a good audience. The first presentation was at school where I knew most of the people and the second one was scarier as I did not know the people there and they were important people. You can see my PowerPoint slides here: <http://www.open.ac.uk/researchprojects/childrens-research-centre/research-children-young-people/aged-11-12>

### 3.5 My conclusions

Overall, I felt that the experience was very in-depth and enjoyable. It was a challenge however to fit my research around my homework and other commitments. If I could change anything in MyShout! It would be to shorten some of the activities. If I did research again I would try out interviews and observations. Also, I would involve more participants and find a better way of getting access to participants to collect data. I would like to look into the topic of violent video games further by investigating where there are any differences between boys' and girls' attitudes. I enjoyed doing my own research because it was a project where you can control everything. I did not have to go and ask the teacher and I was working independently; I did it mostly by myself.

## 4 DISCUSSION

We have reported on a case study that has explored how a young researcher used the web-based resources in MyShout! to enable him to exercise agency over, and take responsibility for, the conduct of his own social research. We suggest that, unlike previously developed resources (e.g. [1], [2], [3], [4] and [5]) that are designed for the adults who work with young people, MyShout! makes it possible for adults to play a more peripheral, facilitative role and to hand over control of the research process to the young researchers themselves. We suggest that this shift in power can allow young researchers to take responsibility for their learning and for the progression of their own research. As a consequence, they can experience a great sense of fulfilment and pride for what they have achieved with minimal adult support.

Enabling Richard to write about his experiences in his own words has been enlightening, particularly with regard to understanding the challenges he faced. A concern about time features strongly in his account, which is an issue that an adult researcher perhaps would not recognise. Fitting in the completion of MyShout! activities, plus the conduct of his own research, around his homework and other out-of-school commitments was a challenge. It is a testament to Richard's enthusiasm and commitment, and that of his peers, that they completed their research and presented it to a wide audience. Richard's account of his research experience offers an indication of the richness of a young researcher's experience; one that still needs to be evaluated fully. He has given some examples of the frustrations he faced and the support offered to him by his mother. Also, Richard has given us a glimpse into some of reasons why young people value learning research skills; he has talked about feeling enlightened, proud, mature, agentic and independent and says that that he enjoyed the experience. Clearly, he thinks that the experience was of benefit.

The challenge now is to explore how Richard, and young researchers like him, can use their new skills beyond the experience of completing their own research. It is one thing to learn about biased and leading interview questions and ensuring that one's own research tools do not fall foul of these issues, but does this new understanding mean that young researchers are more able to be critical of the world? Can they, for example, recognise a biased interview they might see on the television? Are they more skeptical about research claims that they hear, for example, about computer games 'causing' children to be more violent? Are they more ethically aware? And how can we measure these phenomena? Clearly, there is a lot more that we can do to evaluate the experiences of young researchers.

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