Empowering ten-year-olds as active researchers

Conference or Workshop Item

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Abstract:

This paper discusses the outcomes of an initiative to empower able ten-year-olds as active researchers. It describes a study in which a group of ten-year-olds participated in a taught programme of research process aimed at equipping them with the knowledge and skills to design their own research. This empowering process resulted in the children undertaking research projects of their own choosing, designed, carried out and reported entirely from the child perspective.

Key words: *empowerment; children as researchers; highly able, gifted and talented relations.*

Introduction

Research is greatly valued in the adult world as a way of moving our learning forward, developing our thinking skills and empowering us professionally, but despite our awareness that we have some extremely gifted and talented primary pupils we don't often consider that the research process could be equally beneficial to their learning.

Most primary pupils get involved in some form of 'research' at school such as environment projects, internet searches, maths data surveys, scientific experiments and the like. How are these different from 'Research' with a capital 'R'? A piece of research with a capital 'R' requires:

- an understanding/appreciation of theory/literature in the chosen field of enquiry
- a rigorous, valid and ethical research design
- the formulation of a hypothesis

- an appropriate methodology crafted to the nature of the enquiry, that takes account of confounding variables
- systematic collection of sufficient data to answer the hypothesis
- a depth of analysis
- clarity of discussion that demonstrates critical awareness and insight.

How might the research process stretch able pupils?

- The opportunity to read, discuss and critically appraise other people's research
- Use creativity and imagination in designing a valid study
- Improve organisation and management skills in the handling of quantities of data
- Learn to isolate dependent and independent variables
- Develop some understanding of statistical analysis
- Develop ethical awareness
- Improve clarity of though and expression
- Exercise free choice in choosing an area of interest to study (motivation)
- Encourage independent learning
- Empower pupils with a voice (possibly even publications

Theoretical framework

In the wake of the UNCRC (1989) perspectives on child status have seen a shift towards children as social actors in their own right rather than parts of an 'other' such as part of a family or school (Alderson, 2000; Christensen and Prout, 2002; Cosaro, 1997; Thorne, 1993). Articles 12 and 13 of the UNCRC recommend that children should be informed, involved and consulted about all activities that affect their lives - including research. This has led to an increased involvement of children as participant and co-researchers (Jones et al., 2002, Niewenhuys, 2001) and a growing body of literature on the role of children and young people as researchers (Alderson, 2000, Boyden & Ennew, 1997, Hill, 1997). Despite these initiatives much of this kind of participatory research is generally adult-led, adult-designed and conceived from an adult perspective.

The competence debate

Judgement about competence is one of the principal obstacles blocking the empowerment of children as active researchers. Age is commonly used as a delineating factor within the competence debate. This legacy from the dominant period of developmental psychology has been robustly challenged (Woodhead and Faulkner, 2000) and is now giving way to the concept that social experience is a more reliable marker of maturity and competence (Solberg, 1996; Alderson, 2000; Christensen and Prout, 2002)). Waksler (1991) suggests it is more helpful to think in terms of children's competence as being 'different' from adults' not 'lesser'. Alderson gives a poignant example of how misguided our preconceptions about children's age and competence can be from some research about children's consent to surgery She asked a ten-year-old girl 'So you're having your legs made longer?' and the girl replied, 'I suffer from achondroplasia and I am having my femurs lengthened' (cited in Alderson, 2000: 244).

The knowledge barrier

Another barrier is the belief that children do not have sufficient knowledge and understanding to investigate subjects in any depth. Undoubtedly adults have superior knowledge in many areas of life but with regard to childhood itself - in the sense of what it is like to be a child - then surely it is children who have the expert knowledge, as Mayall (2000: 122) states,

> I want to acquire from them (children) their own unique knowledge and assessment of what it means to be a child; for though I can remember some things about being a child, I may have forgotten much, and childhoods may vary and have probably changed over the years since I was a child.

If the research areas that interest children emanate directly from their own experiences and perspectives then no adult, even the most skilled ethnographer, can hope to acquire the richness of knowledge that is inherent in children's own understanding of their worlds and subcultures. The adult ethnographer cannot entirely bridge the divide and 'become a child again' however invisible she or he attempts to be in the immersion process (Mayall, 2000). This is not to devalue the many excellent research studies that have been undertaken by adult ethnographers (e.g. Cosaro, 1997; Punch, 2000; Thorne, 1993) rather, to propose going a step beyond involving children as participants to handing over the initiative and empowering them as active researchers.

The skills barrier

It is when we come to consider the skills that children need in order to undertake effective research that the ideals begin to unravel. However liberally we interpret their competence and however much we value their 'expert knowledge' children of nine and ten do not possess the research tools and skills to be able to design their own studies. It is quite common for adults to shape a project and then involve children as participants and not uncommon for adults to invite children to be part of steering committees and advisory councils (albeit often at a token level) at the conception stage of a study. It is much less common for children to initiate and drive a research project themselves. Reflecting on the skills needed to undertake research it soon becomes apparent that these attributes are not necessarily synonymous with adulthood, they are synonymous with researchers, most of whom have undergone formal training programmes. There are many adults who would not be able to undertake research without such skills. It would appear, therefore, that a barrier to empowering children as researchers is not their lack of adulthood, but their lack of research skills. So why not teach them? This is exactly what I set out to do. No-one is claiming that children between 8 and 12 years of age are going to be able to learn about the squared multiple correlation coefficient but they may very readily be able to learn about research questions and hypotheses, about data collection techniques such as observation and interview, about validity, simple data analysis and research ethics.

The pilot work

I undertook a pilot study with 7 able children from a large county primary school in Oxfordshire. With them, I set up a Research Club that met every Friday lunch time for two terms. We all brought packed lunches and worked through the first 20 minutes of the afternoon reading session giving us about an hour and a quarter each week. The first 6 weeks were devoted to the transfer of knowledge and skills about research design and methodology and the remaining weeks (14) to supporting pupils with their own research.

The pupils had a completely free choice in what they wanted to research. Of the seven children, six opted to work in pairs and this led to the undertaking of four research projects in all. The topics chosen were indicative of the pupil's areas of interest and concern and gave voice to the child perspective. Three examples of the children's

research studies are included in summary form below, the fourth is presented in full, as written by the pupil.

1. **'Hey I'm nine not six!' A small-scale investigation of looking younger than your age at school**

Summary: Using observation and interview the young researchers investigated what life in the playground was like for two girls who looked a lot younger than their age. Their findings pointed to some common themes such as being 'babied', being treated like dolls and being bullied by younger children. They noted some strategies that the two girls developed to help get them noticed including shouting loudly and jumping up. The researchers maintained that they were better placed than adults to undertake this research because they were party to playground subcultures and able to understand and interpret the behaviour of the two girls from the child perspective.

2. **Gender differences in the way Year 5 pupils use computers.**

Summary: The researchers designed a questionnaire using a Likert-style scale to elicit responses about how girls and boys of their age used computers. They found some clear gender differences particularly in the stronger preference of boys for playing games on computers. Girls liked doing Internet searches more than boys and used computers for homework more often than boys.

3. How are nine to eleven-year-olds affected by the nature of their parents' jobs?

Summary: This small-scale investigation explored how parents' jobs affect their children in terms of how the hours they work and the moods they come home impact on the quality of interaction with their children. The research question posed was: 'how are children affected by the nature of their parents' work?' It was predicted that most children would prefer their parents to work shorter hours and be able to come to watch them in more school events. Some of the findings were unexpected and pointed

more to 10 and 11-year-olds' realistic acceptance that their parents' needed to work than unrealistic wishful thinking.

4. The social nature of TV viewing in 9-10year-olds: a small-scale investigation

Simon Ward

Introduction

Lots of other people have done research about TV but this is often about popular programmes and hours that children watch. But I was more interested in *how* children watch TV rather than what or why. In other words, who they like to be with when they watch TV, whether they like to watch in a noisy or quiet environment, how they react socially to the programmes and how much they think and talk about them.

Design

I had to decide how I was going to find the answers to these questions and thought that a questionnaire would be the best option. I had been learning about different types of questionnaires and some of the difficulties in designing them with my supervisor. I knew that I needed to ask the kind of questions that would give them enough choices but still enable me to group them so that I'd be able to see if there were any patterns. I thought carefully about how they would feel when they filled in the questionnaire and about their privacy. I didn't want the questionnaire to upset anyone or make them feel they were giving away embarrassing information. Because of this, I made the questionnaire anonymous, and just asked them to give their gender and age. My supervisor helped me to get the questionnaire how I wanted it and then I piloted it with a small group of children to find out if the questions were clear and the response scales were suitable. I amended the questionnaire according to their comments. I then had my final version.

Collecting the Data

I explained what I was trying to do to the three Year 5 classes in my school and asked if they would be prepared to fill in my questionnaire. Everyone seemed happy to do this and the teachers offered to read the questions to anyone who needed help. I got 75 completed questionnaires (some children were absent).

The findings

When I got all the questionnaires back the first thing I did was a tally on each question so that I could start to sort the data onto a spreadsheet. My supervisor helped me convert these into graphs. This made it much easier to interpret the results. The graphs are presented in figures 1 to 8 below.

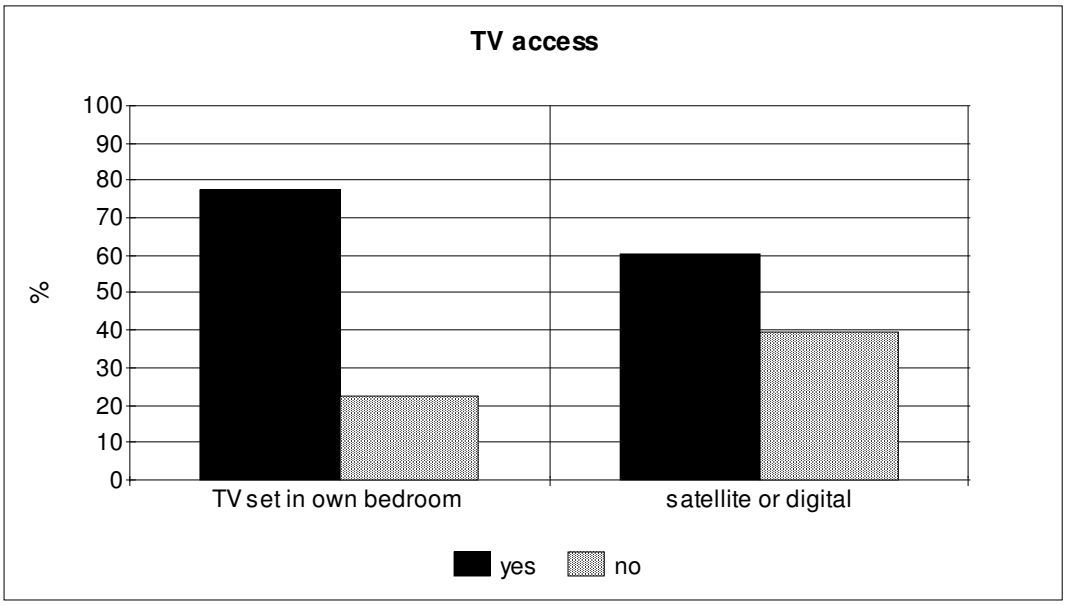

Figure 1 Children's access to TV

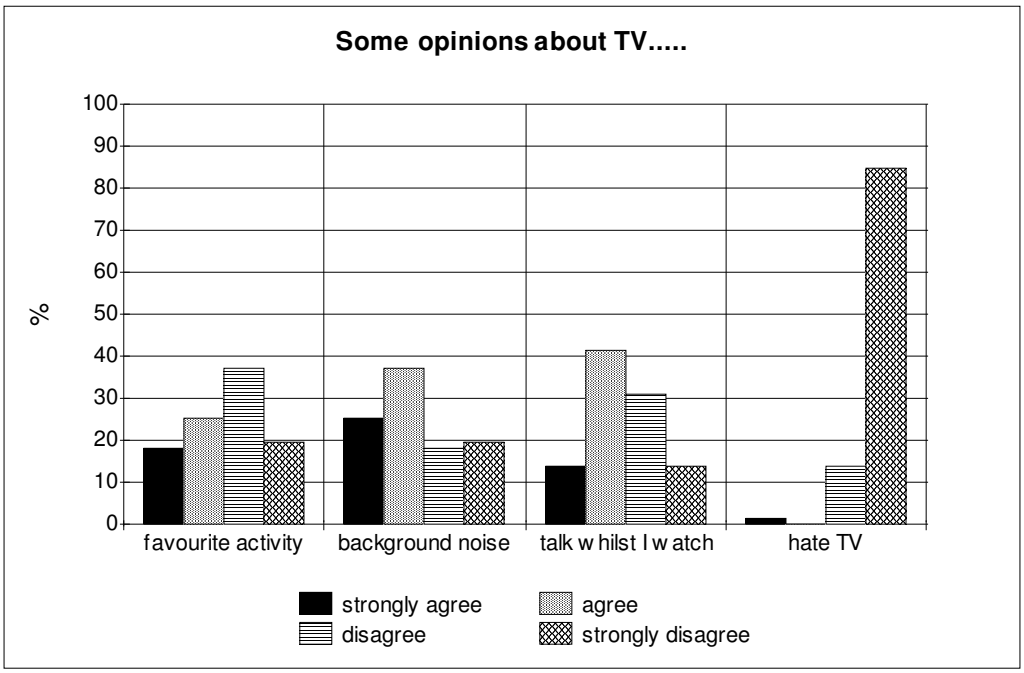

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Figure 2 Children's opinions about TV

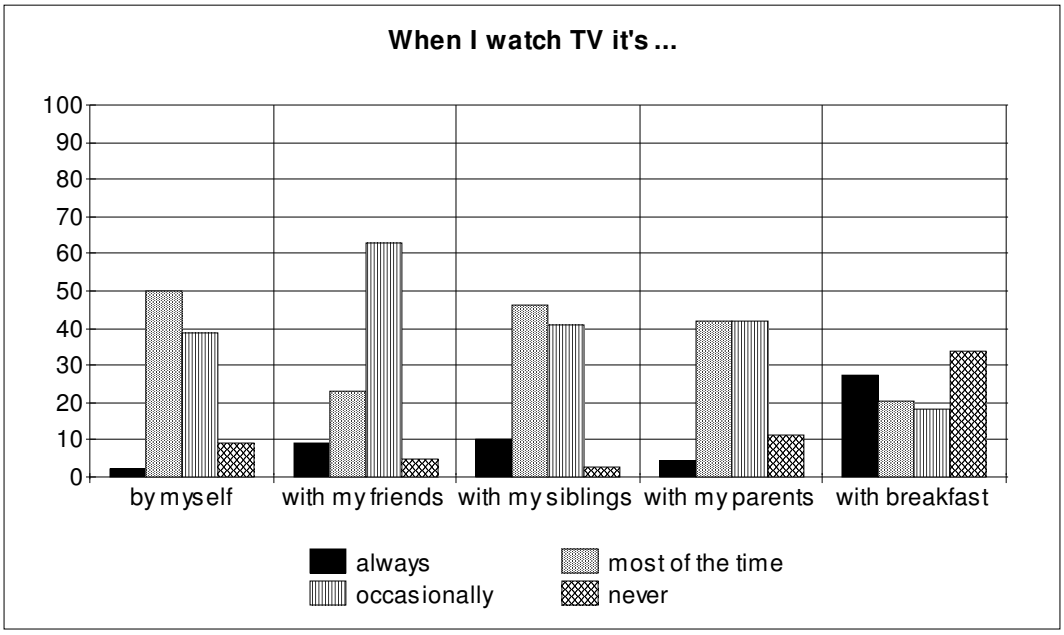

Figure 3 Who children like to watch TV with

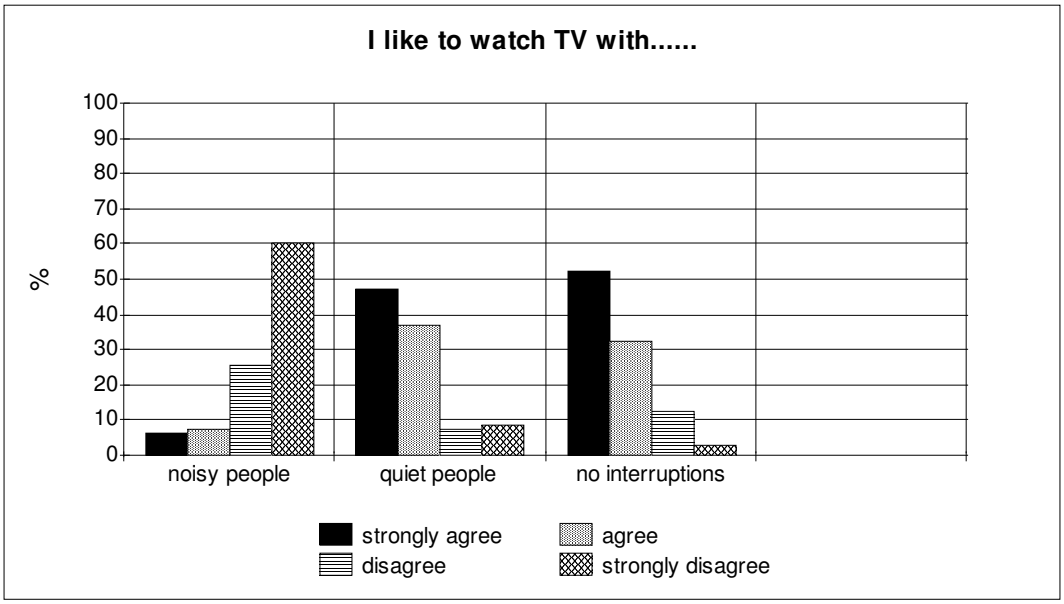

Figure 4 Conditions in which children like to watch TV

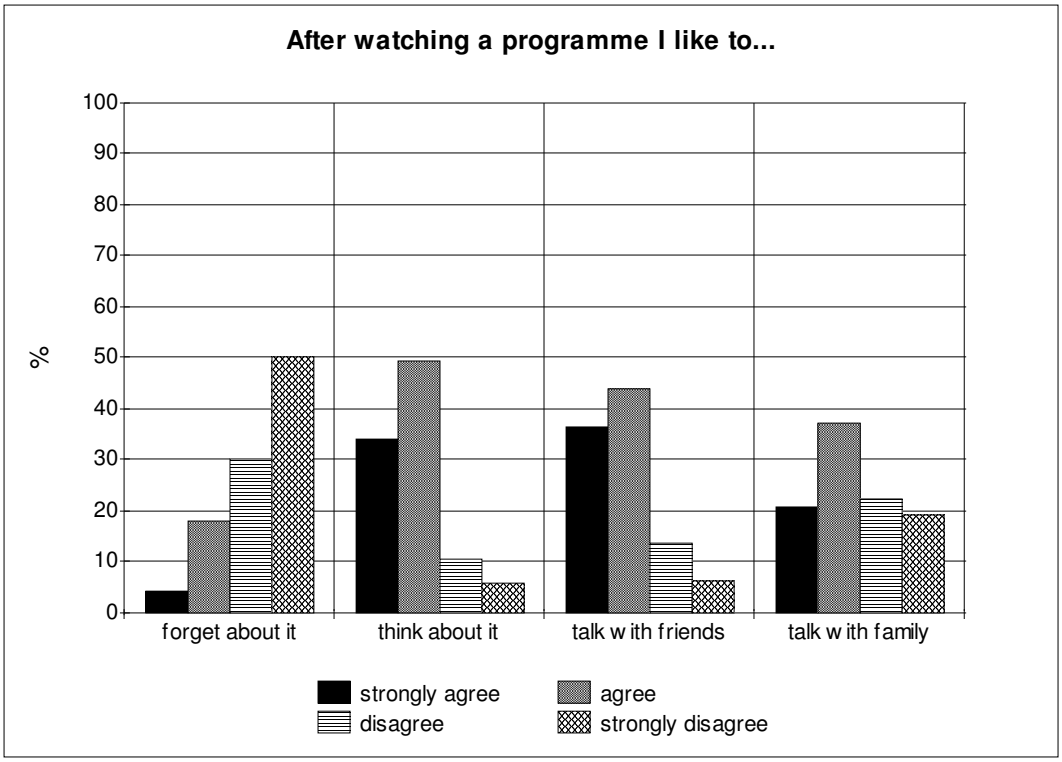

Figure 5 What children like to do after watching a TV programme

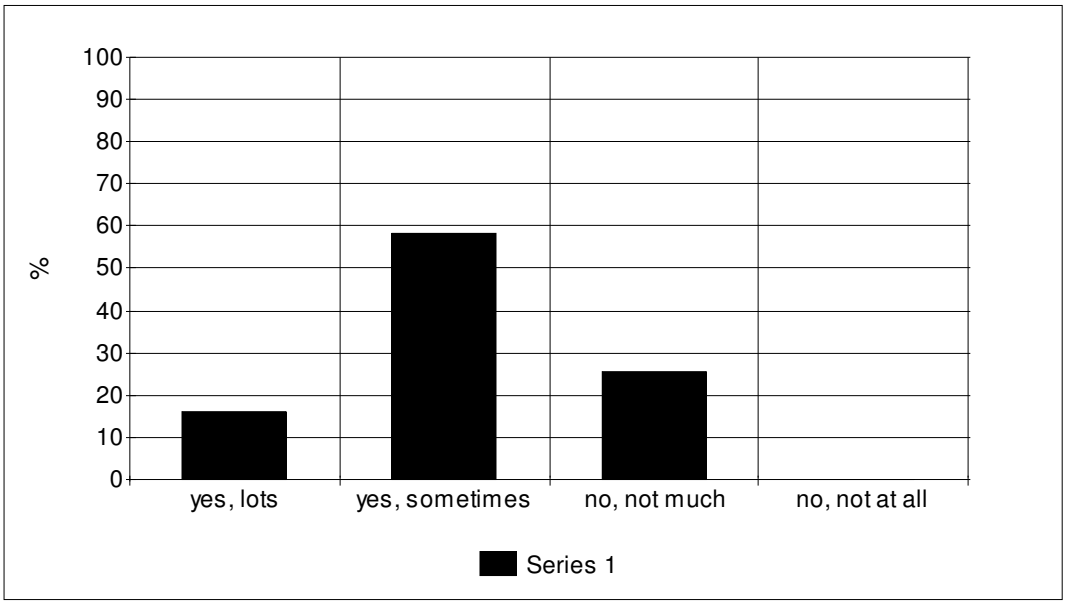

Figure 6 How much children enjoy talking about TV programmes

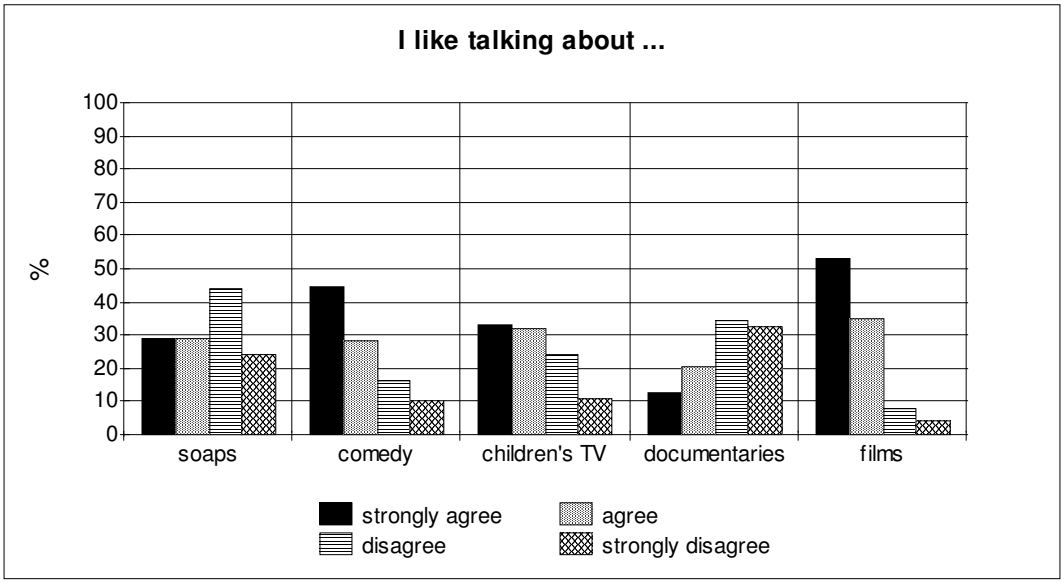

Figure 7 Kinds of TV that children like to talk about

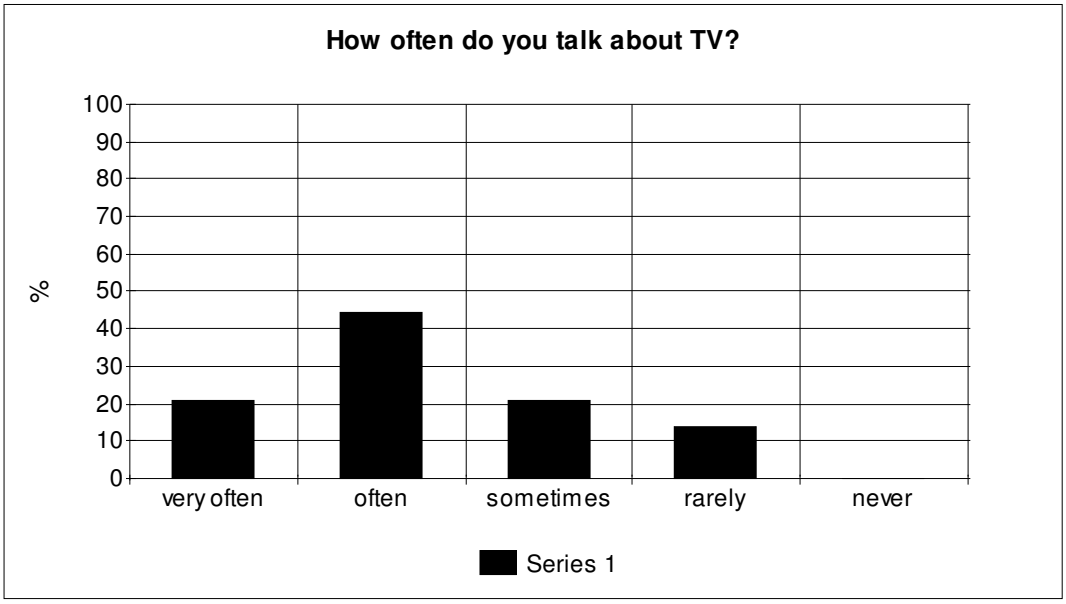

Figure 8 How often children talk about TV programmes

Analysis

Lots of children have access to a wide range of TV programmes because many of them have a television in their own bedroom (see figure 1). This may mean they are able to watch it anytime - first thing in the morning, when they come home from school, at bedtime and late at night. If children have a TV in their bedroom, they are less likely to be supervised by their parents and may watch unsuitable programmes. Also children are more likely to watch TV alone and so not talk about what they have watched immediately afterward. Having said that, we can tell from figure 7 that children quite like talking about programmes they have watched.

Nearly two thirds of children have satellite or digital TV in their homes, so they may be able to watch their favourite programmes more often, and see a wider variety of programmes.

Looking at figures 2 and 4 there seems to be a disagreement in what the graphs are showing. About 85% of children don't like watching TV with noisy people and about 82% of children like watching TV without any interruptions but about 54% of children like talking whilst watching TV. This means either that they only like it when they themselves are talking about the programme and not other people they are watching with, or more likely, they don't mind people talking about the programme as long as they don't distract them from it by making a lot of noise or talking about something else.

More than half the children said that watching TV was not their favourite leisure activity, which means that they have other interests and hobbies that they enjoy more. However watching TV is obviously important to children because 84% strongly disagreed with the statement 'I hate TV'.

If we add together the first two columns (*always* and *most of the time*) in figure 3 we find that the most common thing is for children to watch TV with their siblings, closely followed by watching on their own and then with parents. This is not really surprising because during the school week I would expect that most children of this age would spend the majority of their spare time at home with their family and not with friends. 63% of children watch TV with their friends occasionally and this could be explained by weekends when children have more free time to meet with their friends.

Looking at the section about watching TV whilst eating breakfast, it is interesting that the largest responses are opposites – either 'always' or 'never' rather than more of a spread across the categories. This suggests that families have fairly definite views about whether they should watch TV at breakfast time. It would be useful to investigate this further to find out whether this was also the picture about watching TV during evening meal times.

The results in figure 5 are consistent in that 80% of children don't like to forget about TV programmes they have watched and almost the same number (82%) say they like to carry on thinking about a programme they have watched. From the same figure we can tell that children prefer talking with friends about TV programmes they have watched than talking to their family, this may be because their

parents wouldn't be interested in the same programmes or may not see them from the same point of view as their children, whereas their friends would be on the same wavelength.

From figure 6 we can tell that the majority of children like talking about programmes sometimes. Films are very popular subjects for conversation (87% like talking about them) whereas documentaries are not (only 31%) although this might also reflect who they have been watching the programmes with because we have already found out that children prefer to talk about TV programmes with their friends than with their parents.

The stronger trend is for children not to talk about programmes (the number of children who don't like talking about TV programmes much, is greater than those who like talking about programmes a lot). This seems to support the idea that TV does not encourage more communication.

Comparing figures 6 and 8 it is interesting to see that 86% of children say they sometimes or often talk about TV but only 75% say they enjoy talking about TV. They may feel they have to respond when someone talks to them about TV because they feel silly if they haven't got something to say, even if they would rather keep quiet.

Conclusions

In conclusion I think that the social aspects of TV watching are affected by many different things. Firstly, many children watch TV in their own room, which might encourage them to watch TV more, but make it less likely that they will communicate during the programme or talk about it immediately afterwards. When children do watch TV with others, some like to discuss the programme while it is still going on, but most like to watch in a quiet environment, without interruption. How much children like to discuss programmes they have watched, depends partly on what kind of programme it was and partly who they were watching it with. Although watching TV is important to children, most of them have other interests and many children say that watching TV is not their favourite activity.

Overall, watching TV encourages children to communicate with their peers, because it gives them something to talk about and they tend to watch similar programmes. It might make children spend less time talking to their parents because they are interested in different programmes and watching TV takes up time they might have used in talking to their parents about other things. The evidence from the questionnaire suggests that some kind of programmes encourage children to talk more (e.g. films and comedy) and I think this agrees with my experience listening to children talk in the school playground.

In general, the results of the survey were what I expected, but there were one or two surprising things, for example the number of children who had a TV in their bedroom and this is an area I could follow up in later research to see in more detail whether this affects how much they talk about TV, for

example by asking how much time they watch their own TV and how much time they watch the family TV.

If I were doing the research again, I might change some of the questions, for example I would probably divide the question on soaps/documentaries etc into two parts:

- I like watching soaps on TV and
- I like talking about soaps I have watched.

I would probably also change question 13 and 14 so that they have comparable responses and possibly add a question about their other leisure interest, to find out whether they are generally more or less active and social than watching TV. I would probably give the questionnaire to more children, to get more results to compare and I might also conduct some small group discussions with children to get their feelings and views in a bit more detail. This would add to the information I got from the questionnaire.

Outcomes

There are two major outcomes from this study. The first is the children's contribution to the body of research knowledge. The children argue strongly that, although not as experienced as some adults, their research uncovered data that might not have been possible for adults to obtain. They argued that being party to playground subculture and being on the same wave length as their peers enabled them to design studies that better accessed the child perspective.

The second outcome relates to the development of their learning through their engagement with the research process. Post-study interviews with the children revealed that they themselves thought their organisational and management skills had improved through handling and sorting vast amounts of data and their thinking skills had developed through critiquing their own and other people's work. The pupils wrote up their studies (two of which are in the process of being published) and all seven of them presented their research at the Westminster Institute of Education conference in June of this year. These are very maturing learning experiences for such young children. Furthermore they all identified areas where they could take their research to in the future.

Where to next?

Following on from the pilot study I have been trying to persuade more schools to become involved in this learning initiative. One of the stumbling blocks is the research expertise required to deliver the teaching element of the programme. At the moment I have been doing this part myself, drawing on doctoral level research experience and previous primary teaching experience but clearly one person doing this is unsustainable if the initiative is to spread. Teachers with masters' degrees or working towards a masters degree are ideal candidates to undertake this kind of teaching.

Conclusions

This paper set out to demonstrate that with the right kind of training, help and support children of this age *can* become active researchers, designing and leading their own studies. Some might dismiss the research efforts of these young children as simplistic and conclude that adults could have researched the topics much more extensively. This would be to miss three important points. Firstly, the children succeeded in getting responses from within their peer group in a way that may not have been possible for adult researchers because of power and generational issues. Secondly, their work adds to the body of knowledge about children and childhood from a genuine child perspective. Thirdly, the dissemination of research carried out by them and, importantly, owned by them, empowers children with a voice. Hopefully this paper will stimulate discussion around these issues and invite us to question some of our assumptions about 'competence' and about children's roles as researchers.

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