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A Climate for Change

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Abstract

This paper reports on the findings of a research project investigating the nature of participation of secondary school students in a collaborative research programme. Four groups of students, aged 14 to 15 years old, from a secondary school in the United Kingdom (UK) participated in the study. The students involved in the programme took the role of researchers investigating their peers' perceptions of climate change using video to visually record their findings. University researchers worked collaboratively with the school students and a teacher from the school through an approach that empowered the students within the research process. Drawing from the ideas and issues raised from an initial briefing session, each group of students developed a short interview schedule to be used whilst investigating the views of their peers. Although the project was on a small scale, the data gathered from the brainstorming activity, video reports and reflective discussions provided a useful snap shot of how the participating students perceived their experience and the nature of their involvement in the research process. The research approach enabled students to take on the role of investigator when interviewing their peers and to offer a voice for both themselves and their peers.

Introduction

Participatory research involving young people is gaining significant momentum and a growing body of research reports on varied approaches, outcomes and levels of participation (Clark, et al, 2001). However, while many disciplines seem to have embraced the approach the field of education has been slow to tap into what is viewed by exponents as an effective method for emancipating those who, traditionally, are subjects of the research process (Fielding, 2004). A limited number of studies that have utilised the approach in educational settings do exist and report on research involving school students as more than just subjects to be studied (Warren, 2000; De Winter, et al, 1999). Moreover, the European Commission's White Paper—'A new impetus for European youth' (2001) suggested that a need to involve young people in processes of change both within and externally to schools exists and should be considered urgent (2001). Statutory guidance produced by the Department for Education and Skills (DfES) in the UK (2005) states that head teachers and school governors must implement strategies for offering school students a voice within school decision making structures. Thus, although researching school students' perceptions, views and/or attitudes about school education is far from new arguments for involving them in a much more participatory role are beginning to emerge (Flutter and Ruddock, 2004).

This paper reports on research conducted with school students from one school in the UK. Fourteen students in four groups were tasked with investigating their peers' understanding and views of climate change. University researchers worked collaboratively with the students and their science teacher in order to determine the:

1. nature of participation of school students in research when engaged as researchers?
2. benefits for school students when engaged as researchers in collaboration with teachers and university researchers?

Student Voice

Much of the existing literature focused on participatory research suggests that a key benefit of the approach is that it offers a 'voice' to those being researched (Kirby & Gibbs, 2006). This view is based on a client-led model of education whereby school students are collaborators in the development of their education and education systems as opposed to simply recipients of education which is 'done to them' (Ruddock and Flutter, 2000). While many schools in the UK have adopted strategies that provide opportunities for school students to become involved in decision-making through such mechanisms as school councils and student groups, participation is often restricted to discussing and deciding on peripheral issues such as school meals which reduces their participation to mere tokenism. Kerr, et al (2002) studied student participation levels in 28 countries (including the UK) and reported that only one quarter of school students were offered realistic opportunities to voice opinions about compulsory education.

However appealing the movement of student voice may be it is not simply a matter of providing outlets for students. School infrastructures and cultures would need to be changed to ensure effective engagement with students. A culture that opened up the practice of teachers and senior managers to student scrutiny and acceptance of valid and relevant student perspectives would have to be established (Fielding, 2001). Problematising the issue of student voice in this way suggests that schools are hardly likely to embrace the change over night.

School students as researchers

There are existing studies that report on school students as researchers which pay more attention to students as constructors of knowledge, through a social constructionist way, rather than focusing heavily on the issue of student voice (Dodson and Baker, 1995). Empowerment within the research process of both the researchers and the researched is a key emphasis of these studies. Kirby (1999) highlights the involvement of young people as beneficial to both. She states that young people who participate in research can become actively involved in topics that impact on their own lives. Furthermore, they can also be exposed to life enriching experiences which help to increase self-confidence and self-esteem. Kirby also states that young people may be able to identify issues and questions which professional researchers may miss, while also having the ability to put their peers at ease during interviews through the use of appropriate language which is clear to their peers.

Flutter and Ruddock (2004) suggest a ladder of student participation that is based on 5 rungs which describe the levels at which students can participate:

0 – students not consulted
1 – listening to students
2 – students as active participants
3 – students as researchers
4 – students as co-researchers

The author's view is that the greater the involvement of students the more they move away from being 'objects' of research to 'fully active' collaborators. Other exponents have argued that complete participation and collaboration should exist at all stages of the research and should highlight the process of shared knowledge production (De Koning and Martin, 1996).

While greater involvement of school students in research processes may offer an alternative lens from which to view research findings, it also brings with it complications and ethical considerations which need to be addressed if the research in question is to be successful in making a realistic and valid contribution to existing knowledge in the field. Inevitably there will be ethical considerations when involving school students in research. Gaining informed consent from research participants is a key issue particularly when working with children, as possible differences in understanding and interpretation of information between adult and child need to be addressed. Also, academic researchers should guard against placing participating school students in vulnerable situations which may cause distress or difficulties (France, 2000). Another key factor which has emerged from the existing debates on the ethics of involving young people is that academic researchers should also consider the specific benefits to the research of involving young people and the benefits for young people. However, to some extent many of the ethical problems that arise from conducting research that directly involves children can be surmounted by using participatory methods (Thomas & O'Kane, 1998). Positioning children as researchers rather than as the researched can help to redress, somewhat, the power imbalance traditionally experienced by subjects of research within the researcher-subject relationship. The imbalance of power can be particularly emphasised when the subject of the research is a child. Therefore, providing young people with an equitable role within the research process can help them to develop ownership and control over their involvement (Alderson, 1995).

The emergence of new paradigms within the social sciences have increased our acceptance of the child as a competent social actor and have opened up a dialogue within which child participation can be situated (Sinclair, 2004). The works of James et al (1990; 1993; 1999; 2000) have pushed forward our understanding and conception of the child as an individual social actor who can play an active role in shaping the world around them. There is growing recognition of the child's competence and ability to question, comment upon and be involved in making decisions about the things that affect their day-to-day lives. There is undoubtedly a shift, through both policy and practice, to involve young people more in knowledge generation and decision-making processes within the social sciences and education, albeit at a slower pace. While this shift is welcome the concept is relatively new and needs strong consideration and planning before operation. If correct planning and

procedures are observed school students and young people may begin to offer new insights into worlds where they have previously been considered objects of research.

Methodology

Sheffield Hallam University (SHU) researchers, in collaboration with an Advanced Skills Teacher (AST), wanted to explore school students' perceptions of climate change in such a way that would give maximum agency to the school students involved in the research. Rather than surveying or interviewing students as subjects of the research, the aim was to actively engage the students in the research process and to encourage them to drive the study design where possible. A qualitative approach, that was theoretically appropriate to participatory research, was decided by SHU researchers in an attempt to underpin the study to allow for greater student involvement. The approach explored a research process that aimed to be engaging and accessible to school students, and that would allow their perceptions and views to be reported directly, avoiding where possible the filtering of meanings and understandings through layers of interpretation from external researchers (Kaplan and Howes, 2004). SHU researchers offered the idea of utilising video as a media that could effectively excite involvement, and provide more in depth, rich visually stimulating. It was hoped that the use of video could also challenge the traditional role of the students and create opportunities for empowerment and voice. As Beaty (2003) expands, the use of video can have a positive impact on a students positioning, it requires the students to move away from their desks, make their own choices of what to film and where, it can provide them with a legitimate pass to traverse all corners of the school and to meet people they would not usually encounter. It must be noted that the use of video as a research tool also demanded enhanced consideration of ethical conduct with regards to consent, ownership, confidentiality and presentation of data (Shuck and Kerney, 2006). All pupils involved and a parent or guardian signed consent forms for participation.

The project took place at a secondary specialist engineering school (11-18) with nearly 2000 students on roll serving a mixed socio-economic area in the Yorkshire region of England. The participating school students, aged 14 to 15 years old, were identified through a process of random selection, followed by self-selection. Twenty-six students were randomly selected from across the whole of Year 9 by the collaborating AST and then invited to an initial project information meeting, from which sixteen attended and fourteen decided that they would like to participate in the research project.

For the purposes of the project the participating students were asked to work in small groups. The students organised themselves into four groups, a group of four girls, a group of four boys, a mixed group of four and a small group consisting of two girls. An initial briefing session involved the students being introduced to the aims of the project and a discussion on how they might adapt the research process. Time was also spent brainstorming their ideas and understanding of climate change, and any issues that the project raised. Each group then presented their thoughts to the other students and academic researchers to initiate a discussion whereby a mutual understanding of what the project entailed was negotiated. The framework of the project was deliberately unstructured to encourage students to take control and ownership of what they were doing. The main guidelines given were that the students were to act as

researchers exploring their peer's perceptions of climate change. They were to collect data and report findings using video. It was also suggested that each group drew up a project plan to help them through the process.

Drawing on the brainstorming and discussion the four student groups began to plan their research and decide what information their investigation needed to gather. Each group developed an interview schedule that they would use to elicit their peer's perceptions. The participating students conducted their video research over a three week period. Whilst they conducted their research academic researchers were available for support and guidance if requested but otherwise offered the students complete autonomy during the process to allow students' ownership of their research to flourish.

At the end of the allocated time, the students, teacher and academic researchers viewed the video data and engaged in a group discussion that focused on the video data. A number of issues were discussed including the need for appropriate training in the use of camera/video equipment and the advantages and limitations of video as a research tool. A 'reflective session' in which the pupils reflected on the research process as a whole then took place. The pupils described their reflections on their participation as researchers, firstly in small groups and then to the wider group, highlighting successes, areas for improvement and suggested further development of the project. Following this, each group did a final piece to camera summarising their findings and imparting their final thoughts.

Nature of school student participation

The current study set out to identify the nature of school students' participation when engaged as researchers and the specific benefits of participation for students. In doing so the participating students, AST and SHU researchers found themselves as part of a 'community of thinkers' who developed idiosyncratic concepts and then shared and reshaped those conceptions together (Young, 1992). All participants shared and discussed all aspects of the research and engaged in dialogue which sort to problematise issues regarding the processes engaged in, explore findings and develop final results.

The students were allowed maximum autonomy to develop and manage their research with the AST and SHU researchers offering help and guidance if needed. Offering the students complete autonomy had the potential to place the collaborating AST in an atypical situation with the power of the relationship reversed and situated with the students (Fielding, 2001). However, the AST's role as co-researcher also integrated a minor role of 'advocate' for the student groups. This became a valuable and necessary transformation as tensions within the school between non-participant teachers and the students had to be calmed in order for the students to be allowed to progress with their research off timetable and move around the school interviewing peers. To a limited degree this transformation meant that the AST moved from research collaborator to student advocate and in doing so it is possible that a small power shift away from the students and towards the AST emerged as he became the gatekeeper for their participation and progress of the research. However, this did not explicitly affect the students' participation and feelings of trust as one student explained, '*being able to design the questions and then do the research ourselves was*

fun and I felt trusted with doing it right'. Feeling trusted was mentioned by a large number of the students during group discussions. They accepted that the collaborating AST had an essential role in progressing their research through negotiation with other teachers in the school and that this did not impact upon their autonomy negatively.

However, this does indicate that the participating students were cast not as co-researchers who were fully involved in all aspects of the research, but as student-researchers. The ladder scale of Flutter and Ruddock (2004) places the participating students within the current study on rung four of the ladder. That said, the level of participation of which these school students practiced was extremely encouraging given that the approach was completely new to the school, AST and students. Initial fears expressed by the both the AST and SHU researchers concerning the level of responsibility being placed on the participating students were quickly relieved by the students through their complete dedication to the task and their openness in sharing ideas, concepts and problems during discussion groups.
All of the participating students stated that they had experienced effective team working within their groups and that they had learned to discuss emerging issues and listen to views of their colleagues in a constructive and thoughtful way as one student explained, '*we didn't argue at all. When we disagreed about something we all talked about it together and found a different way to do it, like when we changed one of the questions*'. It was clear that close collaboration within the different student groups began to develop initially during the first discussion group during a brainstorming session about issues of climate change. All of the groups developed their ideas together in a critical but constructive manner through sharing of knowledge and ideas:

'*The first brainstorming was good because it gave us the chance to talk about what we knew and then talk about what questions we needed to ask….we each designed a question and then added some together*' (Student)

The nature of participation for these students was based on autonomy and trust. The students thrived on a different relationship with their teacher than they normally experience and accepted responsibility for the research and developed complete ownership of the process. While the students' participation was not as full co-researchers their involvement was far beyond that of mere consultation. The process was emancipatory in its attempt to change the nature of students as research subjects to students as researchers. The collaborating AST highlights this further:

> *It was interesting from my perspective that the pupils were very proactive in wanting to continue the research in their own time and take it further with the whole school. They have even suggested changes to the questionnaires. They felt that the personal touch of questioning other school students through video was advantageous* (AST)

Benefits to the participating students

A number of the participating students suggested that their self-confidence had increased as a result of engaging in the research process. Two students explained that the process had made them think about involvement in other school activities:

> *We're thinking about joining the school science club. Doing the research has made us want to do more…we'd like to do more research maybe as part of the science club outside of school, maybe interviewing people shopping at weekends* (Student)

The students were clearly stimulated by the experience and all of them stated that they wanted to take the research further through modification of questions, interviewing parents and other adults, and spending more time on data analysis. They also suggested that they were motivated to think more about the subject of climate change and had become very interested in gaining more knowledge and understanding about the topic as one student stated, '*I didn't really think about it before but now I think its really important and want to learn more about it and tell others*'.

All of the students stated that they enjoyed the research process and viewed it as an alternative to more traditional ways of learning in the classroom. Again, they suggested that autonomy was a key factor which enabled them to organise their own learning through the research process as explained by one student:

> *I didn't know the greenhouse effect was a part of climate change until I started to do the research…I thought they were different things. And finding out about the different gases that cause it (greenhouse effect) was interesting…we went on the internet and did some research for our interview questions and found out loads of stuff about it* (Student)

While research is not a new approach to learning and is quite often used for project work the unstructured approach taken to the research process reported here placed responsibility for learning on the students through a social constructionist approach (Dodson and Baker, 1995) which allowed the students to construct knowledge and understanding within a defined context and through their own design. This clearly benefited the students who found the freedom to construct and explore knowledge in collaboration with their teacher a refreshing alternative to traditional classroom learning and teaching approaches.

Conclusions

There is little doubt that involving students, either through consultation or participation, as more than just recipients of education or subjects of research, is gathering momentum. However, there is still much work to be done if we are to fully realise the potential of this movement and involve school students in decision making and/or research processes as full collaborators. While this movement appears to offer a great deal in terms of benefits to school students, school change and research, delivery of effective approaches that fully engage students are difficult to organise and manage. The reported study provides a snapshot of some of the benefits, levels of participation and approaches that may be considered. However, the academic researchers involved in this current project are under no illusions and are aware that it is very early, in this current work, to claim any great strides. Notwithstanding, the researchers are encouraged that some impact has been made regarding the participating school students and their increased self-confidence and desire to progress the study.

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