Chapter 11
Learning to Become Researchers: Towards Participation?

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Introduction

A great deal has been written about initiatives where research has been conducted *with* children or *by* children (e.g. Alderson & Morrow, 2004, 2011; Bucknall, 2012; Christensen & James, 2008; Green & Hogan, 2005; Punch, 2002; Prasad, 2013, 2014) rather an *on* and *about* children. Getting children to participate actively in research projects alongside adults has become a popular approach to working with children thanks to the influence of work conducted within the 'New Childhood Studies'. At one end of the scale adult researchers have used various participatory activities (e.g. O'Kane, 2008) to help children be involved more meaningfully in research and to mitigate against the power imbalance between adults and children, and at the other end, some children have been enabled and encouraged to do their own research.

Scholars have been writing convincingly about the potential benefits children may gain when they conduct their own research (e.g. Kellett, 2010a; Lolichen, Shenoy, Shetty, Nash, & Venkatesh, 2006; Roberts & Nash, 2009) and participate in research as partners or co-researchers but at the same time criticism has also been forthcoming about child-led research in terms of its quality, whether it can ever be judged according to the same criteria as adult research, whether adult support may be seen as adult influence, and whether child-led research in fact promotes 'true' participation (e.g. Hammersley, 2015; Kim, 2016a, 2016b).

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Types of Research

Some of the controversy with regard to child research hinges on how 'research' is conceptualized. Research in everyday discourse is often used to refer to looking up information on the Internet while at the highest end it refers to rigorous academic work undertaken by highly qualified experts in universities. However, I would argue that there are many layers and levels in between. For example, research is done by students who are learning to become researchers in different fields of study working on their undergraduate or post-graduate projects, or by teachers who use more informal approaches to exploring their classrooms, such as exploratory action research, in order to gain local understandings (e.g. Smith, Connelly, & Rebolledo, 2014), and research can also be undertaken by children. I would argue that all these examples would fit on a continuum from research with a small 'r' to research with a capital 'R', and each and every researcher, whatever their level of expertise, is situated on this continuum somewhere, but always moving forward, i.e., learning more about research through research.

The children in this study are novice researchers and the aim of the intervention was to shed light on how they react to being introduced to the experience of social research albeit on a basic scale.

Child Research

Children can contribute to the research process in many different ways, such as by suggesting alternative research focus, by helping with data collection and analysis and in some cases by disseminating data (Chen et al., 2010; Coppock, 2011; Ergler, 2011; Johnson, 2008; Kellett, 2010a; Kellett, Forrest, Dent, & Ward, 2004; Kirova & Emme, 2008; Mayers & Groundwater-Smith, 2010; Morrow, 2005). Kellett (2010a), referring to Hart's ladder of child participation (1992), proposes that children as researchers or co-researchers may be involved in research to a lesser or larger extent ranging from tokenistic to genuine, full involvement. Kellet (2010a, p. 49) explains that co-researching is more than just active participation in one or two stages of the research process; in fact it is a role that children maintain throughout the whole of the project:

> 'the *co-researcher role is a partnership where the research process is shared between adults and children. A distinguishing element is that co-researchers can be involved in any number of the research phases from design to dissemination. If we were to think of a sandwich as a metaphor: participant researchers always form part of the filling, co-researchers also form part of the bread.*

In Kellett's (2010a) view the greatest barrier to children being able to engage in research is not their competence or their age but their lack of research knowledge. Once some research training is provided for them, conducting their own research becomes a possibility and it can be a transformative experience. Through the exam-

ple of an 11 year-old girl's research project about wheelchair users Kellett (ibid) illustrates that not only can children's research influence their immediate environment but it can also impact positively on their 'self-development, confidence and agency'. These children when they 'realize that their research is valued and listened to by adults, will have an increased sense of personal worth, of childhood as an important stage in life, and of their ability to influence the quality of that childhood.' (ibid, pp. 201–2).

Another reason for promoting child research is that children often get responses from their age group that tend to be different from responses given to adults, and thus their work adds to the body of knowledge about childhood as reported by children themselves (Kellett, 2010b). Another forceful argument in favour of the child researchers' movement is related to the political influence of the UN Convention of the Rights of the Child (UNCRC, 1989) which introduced the concept of the child's right to '*participation*', i.e. the right to be involved in decisions made about important aspects of their lives. Even though the original UN document does not actually talk about the right to undertake research, the right to participation has been interpreted widely, including the right to active participation in research as well.

'Child Research' and Its Benefits

When offered the opportunity to be involved in research in an active way, some children can take genuine and spontaneous interest in aspects of research, and can gradually take more and more responsibility for the research process (e.g. Pinter & Zandian, 2014). Children may take interest in issues and questions that seem unexpected from adult perspectives and they can offer insights that may help to sharpen the adult research focus (Kuchah & Pinter, 2012). Mann, Liley, and Kellett (2014) also emphasize a range of benefits that affect the self-development of young researchers. These include: raised self-esteem, increased confidence, development of transferable skills, sharpening of critical thinking, heightened ethical awareness, enhanced problem-solving abilities, more effective communication and the development of independent learning skill, among others.

Despite the growing literature illustrating the various benefits of child-led research, critics continue to argue that both child research and the underlying concepts are problematic. Questions arise about the academic rigor of child-led research (Hammersley, 2016; Kim, 2015/2016a, b). Dyson and Meagher (2001), for example, comment that research has inherent quality standards that children will find hard to meet because of a general lack of required competencies. In addition, the fact that child-led research is always initiated by adults in the first instance (Kim, 2016b) means that children's research occurs, 'within the overarching agendas, methodological perspectives or normative aspirations that these adults or organisations they represent bring with them' (ibid: p. 238).

There is also an ongoing debate about the true purpose of child-led research. Claims that children's research should at least to some extent be about true *participation*

(rather than just a pedagogical activity) seems like a valid principle (e.g. Kim, 2016b) for those who see child-led research as a political and emancipatory activity. Kim for example, argues that school based research undertaken by children inevitably focuses on adults' agendas. She further states that

> '*as children's research is vulnerable to being subsumed under the pedagogical intentions of adults, and given the ethical questions that arise when that happens, it seems necessary not to fuse conceptually children's research as a tool for their participation and pedagogy. If so, tensions arising from balancing these objectives seem inevitable, as are those concerning children's status as 'beings' and 'becomings'* (2016b, p. 2).

On the other hand, many would agree that child-led research is indeed a beneficial pedagogical activity on its own right and it should be undertaken at school (Bucknall, 2012).

Whilst these debates are interesting from a conceptual point of view, the stark division between pedagogy as undertaking research at school for a pedagogical purpose or undertaking research for participation is over-emphasized. Rather than looking at pedagogy and participation as two opposing positions, we need to focus more on a possible journey children might take from school based research experiences to research outside school contexts.

Different Child Researcher Roles

In fact, this fits with Alderson's (2008) view which highlights three distinct ways in which children can take on roles as researchers. The first role is associated with being exposed to research at school. In this case children's research is unpublished and can be considered as the 'practising' stage. The second possibility is for children to become involved in research designed by adults. In this case, *"besides providing data in their traditional role as research subjects, increasingly, children can help to plan questions, collect, analyse and report evidence, and publicize the findings"*. (Alderson, 2008, p. 279*)*. These tasks fit with the research partner or co-researcher roles. Finally, the third option is research that is initiated and directed by children or young people alone and this corresponds to research for true participation according to Kim (2016b). However, since children cannot become researchers overnight, it seems logical to assume that getting to the third stage - as described by Alderson above, and, as suggested by Kim – presupposes some involvement in research as 'practice' at school, and/ or practice in research having been involved as partners alongside adults, or both. Longitudinal studies illustrating how children may be able to move from one stage or another are currently acutely missing from the literature.

Children who encounter research for the first time may have only limited interest and understanding of the concept of research and what it is for, but it is through practice that they come to appreciate what research is all about, what shapes it can

take and what it can achieve. With practice over time some children who stay interested, will acquire new skills and more sophisticated understandings in research.

The small scale study described in this paper focuses on children's very first experiences of research. In particular, I explore the reactions and experiences of a group of mixed ability children in terms of what they notice, what experiences stand out for them and what confusions and dilemmas occur during their first ever encounter with research in the roles of researchers. The main research question that this paper is focused on is:

> Without any formal experience as co-researchers or partners in research, how do a group of mixed ability children (aged 9) react to the experience of carrying out their own research into an issue of their own choice?

Description of the Study

This study was conducted in a primary school in the UK where I volunteered to run an informal research club once a week for 1 h and 15 min, for six consecutive weeks. At the time of the project these children had never come across the idea of conducting their own research.

I introduced the idea of the research club to the headteacher first who was immediately keen for me to proceed with it because he saw the pedagogical value/ potential of the research club. The headteacher selected a group of 8 volunteer children based on my request that I wanted to work with a mixed group (mixed ability, mixed language backgrounds and mixed in terms of being high and low achievers in their class). As a first step the parents of the children were sent letters inviting them to give their permission for their children to participate. It was only after the parents' letters were signed that I was able to gain access to the children, and we could begin discussions about the idea of the research club and about negotiating their own consent to participate. Given that the Research Club ran at school during school hours, many would argue that the children's participation could not be conceived as purely voluntary because of them being a 'captive audience' (Robinson & Kellett, 2004). However, steps were taken to ensure that the children understood about the voluntary nature of their participation in the study. I followed Gallagher's advice on focusing on consent as an ongoing activity (2009). Gallagher (2009) recommends that 'ethical practice might be seen as an ongoing process of questioning, acting and reflecting, rather than the straightforward application of general rules of conduct'. In line with this principle, and in order to confirm the voluntary nature of the children's participation, each session started with briefly re-visiting the children's consent, the aims of the whole project and a review of how far everyone had progressed and whether everyone still wanted to continue. Every attempt was made to explain to the children that their participation was entirely voluntary and they were free to go back to their regular classrooms at any time without negative consequences and even without a need to explain their reasons.

The Participant Child Researchers

The group comprised eight children (four girls and four boys) and four of the eight children were speakers of home languages other than English (i.e. EAL speakers). This EAL status meant that even though these children were learning at school via the medium of English, at home and in their communities they communicated using another language/ languages. This paper does not permit a discussion of EAL learners' difficulties as documented by research however it should be noted that these learners are often at risk academically (for a recent review see Murphy, 2015). In addition to the language diversity in the group, three out of the eight children were also identified by the headteacher as weaker/ 'at risk' learners, and one boy in particular had severe learning difficulties.

The particular composition of the group is noteworthy because in most research where children are enabled and encouraged to become researchers, it is often middle class, articulate and exceptionally high achieving children who are selected by gatekeepers to participate (Horgan, 2016; Kellett, 2011). This group, though small, was much more representative of the mixed population of an average classroom.

The Research Schedule

For the 6 sessions I followed a plan where my aim was to enthuse the children about the idea of research via sharing with them some real, published examples of child research, and then got them to select a topic they might like to research themselves using questionnaires. Research training was provided (see Table 11.1 below) and within the 6 sessions all children designed a questionnaire, analyzed their data and presented their findings in an oral presentation based on their powerpoint slides. In addition, they were interviewed at the beginning about their expectations and at the end about their experiences of completing their research projects.

Ideally the research training should have involved a focus on what tools are appropriate for what types of research questions but because of the time limitation (only 6 sessions in total) questionnaires were selected as a compromise. In the first few sessions some research terminology was taught and practiced using games and interactive tasks. In addition, question types that typically appeared in questionnaires were introduced and discussed with the children. Then the children were invited to fill in and evaluate a real questionnaire that had been designed for other children of the same age by a graduate student as part of her Masters dissertation (Zandian, 2011). This gave the children some exposure to and experience with the tool (questionnaire) and specifically the opportunity to notice and comment on different types of questions (such as Likert scale, or yes/no question examples). This was seen as a necessary step because some of the children had never actually answered/ completed questionnaires, let alone designed any. Next, the children decided on their own research questions by filling in a skeleton sentence '*What do*

Table 11.1   The detailed description of the week-by-week schedule

Session 1	Introductions;
	Interviews about expectations;
	Card games to introduce some terminology such as *research questions, methodology, data collection, data analysis, conclusion*;
	Examples of a child research project;
	Game: A child research presentation taken from the web spread out on the floor: children are asked to move/ step to the correct part of the presentation after hearing terms such as *methodology, interviews, conclusion, bar charts, pie chart, research ethics;*
Session 2	Game: Matching definitions with explanation related to terminology in two groups;
	Learning about questionnaires: questions types, such as *biased questions, yes/no questions, Likert scale questions*; examples on posters displayed;
	Looking at another example of child research
Session 3	Team game about research terms (whispering game; guessing game)
	Completing a revised version of a questionnaire designed for children; guessing the research question; commenting on question types;
	Choosing own Research Questions
	Completing the skeleton sentence: What do…. think about ……?
	All children start work on a draft questionnaire;
Session 4	All children carry on working with the questionnaires, adding questions;
	Adding 'thank you' notes, introductions and decorating questionnaires;
	All start drafting their PPT presentations on the computer;
Session 5	Over the weekend we get some help with typing up the questionnaires and distributing them at school;
	Short demonstration of PPT for presentations including how to make graphs;
	All children conduct analysis;
Session 6	All children complete and decorate their PPT presentations;
	All children are interviewed about the whole process;
	All video or audio-record their presentations;

…….. think about ………?'. Having selected their topics and research questions they started designing their own questionnaire items. Some children wanted to work in pairs and some individually, and eventually the group split into three pairs and two individuals, 5 projects in total. All completed questionnaires were typed, decorated, printed, and distributed within the school to be filled in by either teacher respondents or other child respondents from different classes. Some questionnaires were designed to be distributed in two different classes with the aim to compare the responses from two groups of children. The topics were about homework, uniforms, online games, horror films and reasons why younger and older children liked/disliked school. These were all topics that the children selected because of their own interests, and some of them were also inspired by child research they came across on the Internet. When the completed questionnaires were returned to the children, they analysed their data and after a brief introduction to the features of Powerpoint, they completed their presentations on the computer. Finally, they all video or

audio-recorded (either on an Ipad/ tablet device or an mp3 player) their research presentations orally, and reflected on their experience of being 'first time researchers', making references back to the first interview when they had talked about their initial expectations.

Parts of the 6 sessions were audio-recorded and a research diary was kept for reflections noting down any observations that seemed relevant. Interviews with the children in the first session and the sixth session were conducted with the aim to reflect on the whole process of their research experience and to compare their initial expectations with the final ones (before and after the project). These interviews were conducted in pairs (three interviews in pairs with children who worked together and the two individuals together as another pair) in order to encourage more talk in a comfortable environment where peers could support each other and build on each other's input (e.g. Lewis, 1992; Mayall, 2008). This also allowed those children who worked on their research project together with a friend to jointly construct and re-construct their shared experiences.

The Role/Status of the Adult Researcher/Facilitator

My role and status as a researcher was that of an interested outsider, not their ordinary teacher but someone with a hybrid identity (Kuchah & Pinter, 2012). Reflexivity, or in this case dual reflexivity (i.e. Christensen & James, 2008), is viewed as the need to stand back and constantly reflect on the children's and my own understandings and perspectives of what was going on was crucially important. I explained to the children candidly that I was trying to learn from them about what it was like for children to do research for the first time, and explained that my own research question was something like this: 'What do children, like you, think about becoming a researcher? ' This mirrored their own research questions (*What do …… think about……….?*) and seemed to make sense to them. Throughout the period of 6 weeks they made frequent references to my research and my research question, asking me how it was going and commenting to each other that we were all engaged in research. I emphasized throughout that I did not expect 'right' answers and also reassured them that any insights, opinions and reactions, both positive and negative, were going to be genuinely useful and much appreciated.

Approach to Analysis

In the interviews in in the first and sixth sessions I asked them about what they expected research to be like and in the last interview the focus was also on what if anything they enjoyed about the research process and why, what they might report about it to others when they explain their research (to parents and grandparents at home for example). All interview data and my research journal were transcribed and

analysed thematically. First initial codes were applied (Braun & Clarke, 2006) and then after re-visiting the data several times, the codes were grouped into categories and themes. In what follows I will present some major themes with some comments from the children focusing on their developing understandings of social research. This is my own interpretation of the children's comments, the children themselves have not contributed to my data analysis.

Given that children's views and voices are always embedded in the local interactional and institutional contexts and they are by nature multi-layered and messy (Komulainen, 2007; Spyrou, 2011, 2016), the children's articulations about research must be viewed as a product of our ongoing collaboration in the given school club context. Their enthusiasm is of course coloured by the fact that this research club was a novel experience and it was different from the ordinary lessons they were used to. In this sense their overwhelmingly positive responses need to be taken with caution. Nonetheless, overall, their spontaneous comments on specific aspects of their experiences and the contrast between their initial expectation and their comment at the end seem to outline a process of qualitative change in their understanding about social research.

Analysis and Findings: The Main Themes

Early, Rudimentary Understandings of the Concept of Research

All the children mentioned at the beginning that real research was something carried out by scientists working in laboratories. The children also told me that they all did research at school and at home. One of the children said:

(S4): I think research is about Google, it is going to be about looking for information on the Internet. You do not know and you Google it.

This is of course entirely congruous with the use of the word 'research' at school: Another child at the end said:

(S6 N) I thought at the beginning it was going to be much different, like just searching the Internet for facts and writing down what we find.

Several children also commented that they thought at the beginning that research was going to be something that I myself, i.e. the adult would eventually do, not the children:

(S1) I expected for you to do it all, we tell you some ideas but then you write it all, all very complicated; that is what I thought.

The children were surprised to realize that asking people questions in a questionnaire could be labelled as 'research'. Compared to their original understandings as

discussed above, after experiencing this project, they began to appreciate that 'social research' was also a type of research in addition to scientific experiments in labs:

(S7) I thought it was going to be researching stuff like scientists do but we were just talking about what people thought about different things.

(S4) I did not know that research could be about asking people questions.

These comments reflect that the children began to 'demystify' research, by attaining a slightly different, perhaps a multi-layered understanding compared to what they had originally started off with.

In their reflections, the children in this project also referred to the fact that at the beginning they thought research was going to be boring and really hard to do. One of the EAL speakers, the least fluent speaker of English, who had been in the UK only for 8 months at the time of this project, mentioned in the interview at the beginning that she was not sure she could do it at all.

(S5) I am not sure I can do this as I usually can't do many of the tasks so I will see.

Other children also mentioned at the end that they had been anxious at the beginning and they expected the research club to be too 'hard'.

(S2) I thought at the beginning that it was going to be hard but it wasn't hard.

(S8) At the beginning I thought I did not like this because I am not very good at English but I made this questionnaire with my friend, A, and it was well, not hard and I really liked it.

By the end all children reported positive changes in their general attitudes towards research and they all concluded that it was very different to what they had expected at the beginning.

(S5 B) Yes, it was fun and I would like to do it again, times 20 million!

Newly Acquired Technical Skills

Children learnt some technical knowledge and skills related to research and many of them enjoyed this aspect of the research process. They were proud to be using adult terminology and show off their knowledge.

Several children commented on the importance of ethics in research:

(S2) Ethics is important, ethics is if you don't want to do it, you don't have to.

(S4) I did not know this word before, ethics, even though my dad does a lot of questionnaires for his work. Ethics is important because for those filling in the questionnaire it is completely fine not to write their names.

All children also talked about various types of questions in their questionnaires and explained technical terms when I asked them what they might tell others about research:

(S4) Well bias is important. Let's assume you really like pizza. Bias is when you ask: Pizza is great, isn't it and you expect people to agree with you.
(S2)Yes, a biased question is pushing the person to say 'yes';

Other children have mentioned Likert scale questions:

(S7) In Likert scale questions you have to have the same amount of positives and negatives;

One of the academically weakest children in the group who repeatedly approached me in the sessions and warned me that he was not going to be able to do much because of his 'learning difficulties' – as noted in my research diary, reflected about his experience spontaneously in the interview during the final session like this:

(S6) We, I learnt a lot of things to tell others, like ethics, data collection, pie charts, research questions and questionnaires and also interviews, which is what we are having now!

First Experience with Data from 'Real' People

A further theme that emerged strongly was related to the authenticity of the experience in terms of working with 'real data from real people'. The moment the data arrived (i.e. the completed questionnaires), the children's excitement levels increased and the purpose of the research suddenly made real sense. I noted down in my research journal:

> Everyone is keen to read and digest the responses in their questionnaires. Some are still completely absorbed in the task of reading through their responses even though it is now time to stop and pack up for today.

In the final interview several children commented on enjoying reading the responses in the questionnaires.

(S3) We were very interested to see what the other children said.

(S7) We were excited when we got them [the questionnaires] back; wanted to know what everyone said.

One pair had 45 questionnaires back from two classrooms and even though they were overwhelmed with the sheer amount of data, they insisted on completing all the analysis. They spread their questionnaires on the floor and spent all afternoon sorting the answers and entering the data into the computer. I tried to talk them into analyzing just half of the questionnaires, those from one of the classes, but they insisted on completing the analysis of both data sets. They seemed to have a strong commitment to their own data. Some children mentioned that the teachers were very surprised to have received these questionnaires and some said that they had never filled in questionnaire given to them by children before:

(S4) …and when we gave it to the teachers they said 'Oh, is that for me?' No one has ever done that.

One child also commented that the unexpected responses were motivating to read:

(S3) Why I enjoyed it because what the children said. It might be different from what you think they might say.

Working with Technology

When asked about what was most enjoyable about the research process, all children commented that they enjoyed to work with the computers and the tablet devices. Children particularly enjoyed working with Powerpoint and many said it was the most fun part of their experience. Closely related to working with technology, one of the children also made a point about having ownership of the task, i.e. about being able to work on the computer doing one's own thing, without much intervention from adults:

(S1) Very very enjoyed the computer work…The best thing was that you let us go on the computer and we could write our own questionnaire.

(S4) We could use the I-pads that was best.

All the children commented on the pie charts and the bar charts as the most fun elements of their work within Powerpoint. At the beginning of the data analysis stage they were introduced to these two types of charts and were shown how to enter data to create charts.

(S3) I loved the charts because when you type it, it just goes up and down on its own;

(S5) I liked the bar charts and other charts in Powerpoint. I did not even know you could do a bar chart in Powerpoint. Now I do.

Another child explains here vividly why the completion of the charts was so much fun:

(S4) Really enjoyed making the bar charts, that feeling when finally you finish the bar chart and it comes up, and there is a massive explosion that is the best.

Discussion: First Time Researchers

In line with Mann et al. (2014) the children in this project clearly benefited from the process of undertaking a small questionnaire study. They learnt transferable skills such as recognizing a biased question or a Likert scale question; they gained some

insights into what research ethics were, how to write a research question, how to write a questionnaire, analyze the data and present findings. These are technical skills that can be built on over time relatively easily if the children have further opportunities to continue their 'apprenticeship' as researchers. Indeed, if the adult facilitator can continue working with the same group of children, their initial skills can be easily built on for subsequent projects.

In this project, in my role as adult facilitator I assisted the children and modeled for them the steps to take in a small scale questionnaire study. They did not make decisions on their own but rather they were following guidelines and models such as the layout and the format of the sample child research projects downloaded from the Internet which served as excellent sources of motivation and inspiration, and which rang true because they had been produced by children of similar age and similar background.

The six sessions that have taken the children through the steps of conducting and analyzing research were just a set of pedagogically useful activities that allowed them to learn about questionnaires and have a direct experience of working with this research tool. The children had complete freedom to decide who they wanted to work with, what topic area they wanted to research, what specific questions they wanted to ask in their questionnaire and who they wanted to target with their questionnaires. Beyond this freedom, though, a clear structure was also provided guiding them every step of the way and helping them progress through the stages of a research project. This was a deliberate, slow and careful approach with a great deal of structure and scaffolding provided but one which also gave the children a great deal of freedom to make their own decisions and enjoy their own discoveries and findings. This experience- being the first 'taste' of research can serve as a strong motivator to do more research and to want to understand more about research. At the end of the project all children agreed that they wanted to do more research. Most expressed pride and satisfaction with the outcome such as this learner:

(S 3) We are very much proud especially because we did most of it alone. I would like to do some more.

Kim (2016a, 2016b) argues that promoting children's research mainly for its educational benefits seems conceptually inappropriate because the purpose of child research is about supporting their participation rights as 'beings' rather than 'becomings' (Qvortrup, 1994). I would argue that taking children through the research process in a highly structured framework, as described here, is an essential foundation for becoming independent. Practice with research, whether it is in the role of a co-researcher or as child researchers working through a whole project from beginning to end with some guidance and support, will have the potential to facilitate children's progress towards research for participation outside the classroom.

It is reasonable to suggest that engaging children with the idea of conducting research for themselves is a process which has to start from a pedagogically focused set of activities initiated by an adult facilitator, but over time, in some cases, when children are keen to continue, it may have the potential to develop into the type of

activity that Kim (2016a, 2016b) labels as more 'authentic' and more true to the core principle of 'participation'.

Returning to the question 'Can what the children have done be referred to as research?' Hammersley's (2016, p. 10) view would be that it could not:

> *In methodological terms, I think it is important to recognise that social research is a specialised activity that demands knowledge and skills that a very small proportion of adults – and hardly any children- have, and ones that cannot be acquired quickly. It requires high levels of expertise.' …'Research involves responsibilities, both as regards seeking to ensure the validity of the findings and respecting ethical considerations – and researchers must be in control of research decisions if they are to live up to these responsibilities.*

The children's work cannot of course be compared to academics' sophisticated work at the highest levels of research with a capital 'R'. However, I argue that these children have taken their first steps on the continuum from zero or very limited understanding of social research to a new level.

Children's understanding of what research is, what it is for and what it can achieve will have the potential to grow further if they can be involved in projects like this, if and when they have repeated opportunities to take more and more responsibility while adult facilitation is phased out gradually. Unfortunately, to-date, the literature does not offer examples of studies that would describe children's development as researchers across a number of small scale projects in a cumulative manner. In fact, sustained involvement of children in research so far seems rare, as commented on by Tisdall, as well:

> *There is too little research, and particularly too little large-scale and sustainable models of research that involve children as researchers or other deep levels of involvement.* (Tisdall, 2012, p.188)

Perhaps with sustained participation and offering multiple opportunities for research in schools we can begin to build up a better picture of how children develop as researchers. However, research undertaken by children in schools is rare and even if it is encouraged, not all children take an interest in it.

Conclusion

Initial encounters with research cannot by definition be mature or sophisticated and it is practice and repeated opportunities to participate in research that help child researchers to develop their skills. At a very different level, adult researchers also need practice and repeated opportunities to undertake research to develop their skills and research expertise.

In this study children responded overwhelmingly positively to the opportunity to do their own research and they did so in a mixed-ability class where some of the children were English as a second language speakers and several children were at risk learners. These children began their journey, learnt some technical skills and knowledge and they expressed an interest in moving forward on their journeys as

researchers. This is a modest but positive start and a solid basis that can be built on. The challenge facing adult facilitators is to find ways in which initial motivation to want to do research can be maintained and fostered in children so that they can move forward on the continuum of becoming more 'established' researchers.

Questions for Reflection
- How would/ could you encourage children to take a more active part in your research project, moving beyond simply acting as data sources?
- Given your focus and research questions, what different ways can children contribute to your study? Can they play a part in planning the project, deciding the research questions and the methodology and /or analysing the data? Which, if any of these, phases might be realistic for them to contribute to?
- Familiarising children with research is a beneficial activity. Guiding them through the steps they should take in research in a deliberate manner is one way of introducing research to children. Can you think of others ways?

References

Alderson, P. (2008). Children as researchers: Participation rights and research methods. In P. Christensen & A. James (Eds.), *Research with children* (pp. 276–290). Abingdon, UK: Routledge.

Alderson, P., & Morrow, V. (2004). *Ethics, social research and consulting with children and young people*. Ilford, UK: Barnado's.

Alderson, P., & Morrow, V. (2011). *The ethics of research with children and young people*. London, UK: Sage Publications.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101.

Bucknall, S. (2012). *Children as researchers in primary schools: Choice, voice and participation*. London, UK/New York, NY: Routledge.

Chen, P., Weiss, F. L., Johnston Nicholson, H., & Girls Incorporated. (2010). Girls study girls Inc.: Engaging girls in evaluation through participatory action research. *American Journal of Community Psychology, 46*, 228–237.

Christensen, P., & James, A. (Eds.). (2008). *Research with children: Perspectives and practices*. London, UK: Routledge.

Coppock, K. (2011). Children as peer researchers: Reflections on a journey of mutual discovery. *Children and Society, 25*(6), 435–446.

Dyson, A., & Meagher, N. (2001). Reflections on the case studies. In J. Clark, A. Dyson, & N. Meagher (Eds.), *Young people as researchers: Possibilities, problems and politics* (pp. 59–76). Leicester, UK: Youth Work Press.

Ergler, C. (2011). Beyond passive participation: Children as collaborators in understanding the neighbourhood experience. *Graduate Journal of Asia-Pacific Studies, 7*(2), 78–98.

Gallagher, M. (2009). Ethics. In E. K. M. Tisdall, J. M. Davis, & M. Gallagher (Eds.), *Researching with children and young people* (pp. 29–64). London, UK: Sage.

Green, S., & Hogan, D. (2005). *Researching children's experiences: Approaches and methods*. London, UK: Sage Publication.

Hammersley, M. (2015). Research ethics and the concept of children's rights. *Children and Society, 29*(6), 569–582.

Hammersley, M. (2016). Childhood studies: A sustainable paradigm? *Childhood, 24*(1), 113–127.

Hart, R. (1992). *Children's participation: From tokenism to citizenship*. Florence, Italy: UNICEF International Child Development Centre.

Horgan, D. (2016). Child participatory research methods: Attempts to go deeper. *Childhood, 24*(2), 245–259.

Johnson, K. (2008). Teaching children to use visual research methods. In P. Thomson (Ed.), *Doing visual research with children and young people* (pp. 77–94). London, UK: Routledge.

Kellett, M. (2010a). *Rethinking children and research: Attitudes in contemporary society*. London, UK: Continuum.

Kellett, M. (2010b). Small shoes, big steps! Empowering children as active researchers. *American Journal of Community Psychology, 46*(1–2), 195–203. https://doi.org/10.1007/s10464-010-9324-y

Kellett, M. (2011). Empowering children and young people as researchers: Overcoming barriers and building capacity. *Child Indicators Research, 4*, 205–219.

Kellett, M., Forrest, R., Dent, N., & Ward, S. (2004). "Just teach us the skills, please, we'll do the rest:" Empowering ten-year-olds as active researchers. *Children and Society, 18*(5), 329–343.

Kim, C.-Y. (2015). Why Resercah by children: Rethingking the assumptions underlying the facilitation of children as researchers. *Children and Society, 30*(3), 230–240.

Kim, C.-Y. (2016a). Participation or pedagogy? Ambiguities and tensions surrounding the facilitation of children as researchers. *Childhood, 24*(1), 84–98.

Kim, C.-Y. (2016b). Why research by children? Rethinking the assumptions underlying the facilitation of children as researchers. *Children and Society, 30*, 230–240.

Kirova, A., & Emme, M. (2008). Fotonovela as a research tool in image-based participatory research with immigrant children. *International Journal of Qualitative Methods, 7*(2), 35–57.

Komulainen, S. (2007). The ambiguity of the child's 'voice' in social research. *Childhood, 4*(1), 11–28.

Kuchah, H., & Pinter, A. (2012). Was this an interview? Breaking the power barrier in adult-child interviews in an African context. *Issues in Educational Research, 22*(3), 283–297.

Lewis, A. (1992). Group child interviews as a research tool. *British Educational Research Journal, 18*(4), 413–421.

Lolichen, P., Shenoy, J., Shetty, A., Nash, C., & Venkatesh, M. (2006). Children in the driver's seat. *Children's Geographies, 4*(3), 347–357.

Mann, A., Liley, J., & Kellett, M. (2014). Engaging children and young people in research. In A. Cark et al. (Eds.), *Understanding Resrearch with children and young people* (pp. 286–304). London Sage.

Mayall, B. (2008). Conversations with children: Working with generational issues. In P. M. Christensen & A. James (Eds.), *Research with children: Perspectives and practices* (pp. 120–135). London, UK: Falmer Press.

Mayes, E., & Groundwater-Smith, S. (2010, December). *Year 9 as co-researchers: "Our gee'd-up school."* Paper presented at conference of Australian Association for Research in Education, Adelaide, SA, Australia. Retrieved from http://s3.amazonaws.com/academia.edu.documents/31395813/1723bMayesGroundwaterSmith.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=1476898127&Signature=10Zmpdlv6soUZuW1mntqqPgITFE%3D&response-content-disposition=inline%3B%20filename%3DWith_Groundwater-Smith_S._Year_9_as_Co-.pdf

Morrow, V. (2005). Ethical issues in collaborative research with children. In A. Farrell (Ed.), *Ethical research with children* (pp. 150–165). Maidenhead, UK: Open University Press.

Murphy, V. (2015). *Second language learning in the early school years: Trends and contexts*. Oxford, UK: Oxford University Press.

O'Kane, C. (2008). The development of participatory techniques: Facilitating children's views about decisions which affect them. In P. Christensen & A. James (Eds.), *Research with children: Perspectives and practices* (pp. 125–155). London, UK: Routledge.

Pinter, A., & Zandian, S. (2012). *'I thought it would be tiny little one phrase that we said, in a huge big pile of papers':* Children's reflections on their involvement in participatory research. *Qualitative Research, 15*(2), 235–250.

Pinter, A., & Zandian, S. (2014). I don't ever want to leave this room: Benefits of researching with children. *ELT Journal, 68*(1), 64–74.

Prasad, G. (2013). Children as co-ethnographers of their plurilingual literacy practices: An exploratory case study. *Language and Literacy, 15*(3), 4–30.

Prasad, G. (2014). Portraits of plurilingualism in a French international school in Toronto: Exploring the role of visual methods to access students' representations of their linguistically diverse identities. *Canadian Journal of Applied Linguistics, 17*(1), 51–77.

Punch, S. (2002). Research with children: The same or different from research with adults? *Childhood, 9*, 231–341.

Qvortrup, J. (1994). *Childhood matters: Social theory, practice and politics*. Aldershot, UK: Avebury.

Roberts, A., & Nash, J. (2009). Enabling students to participate in school improvement through a students as researchers programme. *Improving Schools, 12*(2), 174–187.

Robinson, C., & Kellett, M. (2004). Power. In S. Fraser, V. Lewis, S. Ding, M. Kellett, & C. Robinson (Eds.), *Doing research with children and young people* (pp. 81–96). London, UK: Sage.

Smith, R., Connelly, T., & Rebolledo, P. (2014). Teacher research as continuing professional development: A project with chilean secondary school teachers. In D. Hayes (Ed.), *Innovations in the continuing professional development of English language teachers* (pp. 111–129). London, UK: British Council.

Spyrou, S. (2011). The limits of children's voices: From authenticity to critical reflexive representation. *Childhood, 18*(2), 151–165.

Spyrou, S. (2016). Researching children's silences: Exploring the fullness of voice in childhood research. *Childhood, 23*(1), 7–21.

Tisdall, E. K. M. (2012). The challenge and challenging of childhood studies? Learning from disability studies and research with disabled children. *Children and Society, 26*(3), 181–191.

United Nations. (1989). *United Nations conventions on the rights of the child*. New York, NY: United Nations.

Zandian, S. (2011). A personal reflection on the impact of researching children on my own professional development. *ELTED Journal, 14*, 32–36.