

**Students as researchers for promoting school improvement and inclusion:
A review of studies**

Marta Sandoval, Autonoma University of Madrid, marta.sandoval@uam.es

Kyriaki Messiou, University of Southampton, k.messiou@soton.ac.uk

Abstract

This paper comprises a review of studies that employ students as researchers/co-researchers approaches from 2000 to 2018, with a focus on school improvement and inclusion. The study is original since it focuses exclusively on the idea of students taking the role of researchers/co-researchers, instead of focusing on the broader notion of student voice that other reviews have explored previously. The results highlight the different school improvement areas that are explored and the various stages that have been followed in the studies in order to involve students. Through this analysis, we focus our discussion on issues that need to be considered when using such approaches. Overall, we argue that despite the inherent challenges that such approaches entail, students as researchers/co-researchers can be a powerful way for improving schools and promoting inclusion.

Keywords: Students' voices; students as researchers/co-researchers; review; inclusion; school improvement.

Word count: 7661

Introduction

Inclusive education has been defined as a never-ending process (Ainscow, 1999; UNESCO, 2017) which aims at offering greater participation in learning and in cultural and community activities for all students, whilst at the same time reducing processes of exclusion. Inclusive education is a contested term, with varying definitions in different contexts (Messiou, 2017; Veck and Hall, 2018). We are talking about processes that do not point out to a univocal or unidirectional path, but rather constitute a broad frame of reference, interpreted and understood differently according to different groups and institutions, with the ultimate aim being to enable the presence, participation and achievement of all learners (Ainscow, 2007). We argue that this can be achieved through improving schools. We define school improvement following Hopkins's definition (2007): "a systematic and sustained effort, which seeks to change the internal conditions in the schools" (p. 78). We, therefore, see the terms inclusion and school improvement as interconnected, where school conditions need to be reviewed and modified in order to enable all students' inclusion.

In addition, some authors have made explicit links between the notion of inclusive education and students' voices (e.g. Fielding, 2011; Messiou, 2012; 2014; 2019; Sandoval, 2011; Rojas, Haya, and Lázaro, 2012). There are many authors who have pursued clarification and throw light on the phrase "student voice" (e.g. Gonzalez, Fernández-Saca, and Artiles, 2017 and Hall, 2017) which can cover a range of activities. It includes practices such as consultation, participation, collaboration, leadership and intergenerational learning in which students can actively participate in the school decisions that will shape their lives and the lives of their peers (Fielding, 2011; Rudduck and Fielding, 2006; Mitra, 2009). The significance and value of involving students in school decision-making has been documented in several studies (Rudduck and Flutter, 2004; Rudduck and Fielding, 2006; Thomson and Gunter, 2006; Mitra, 2009). Likewise, inclusive classroom practices that promote ownership and engagement enable students to become 'agents in their own learning' (Rainer and Matthews 2002). In fact, students can be considered as "change agents" or to use

Fielding's (2001) words "radical agents of change". Cook-Sather (2006) asserts that young people have unique perspectives on learning, teaching and schooling and that they should be afforded opportunities to actively shape their education. In this way, school change is not directly framed around implementing top-down practices but focuses on developing learning opportunities through shared agendas of the various agents.

Participation of students in decision making in schools is not new and there are many studies that refer to such examples to date (Rudduck and Flutter, 2004; Rudduck and Fielding, 2006; Thomson and Gunter, 2006; Mager and Nowak, 2012). Such approaches are linked to the idea of schools as democratic communities where students, teachers and other school staff collaborate with each other to improve the quality of schooling. In these communities, conditions of learning are enhanced through students feeling a greater sense of inclusion, validation and agency, which increases their learning engagement and confidence (Fielding 2001). However, new roles on the part of students and teachers are required (Fielding, 2011). In fact, students' actual impact largely depends on the adults' roles and standpoints. As Mitra, Serriere, and Stoicovy (2012) argue: "When developing student voice initiatives, one of the greatest struggles is the role of the adult in these interactions" (p.104).

This paper focuses on a review of studies that employed student researchers/co-researchers approaches, with a focus on school improvement and inclusion, published between 2000 and 2018. Through our analysis we aim to highlight the potential, as well as what researchers and practitioners need to be cautious of, when using such approaches.

Students as researchers/co-researchers facilitating school change

Various typologies have been developed to describe student voice activities in schools according to different perspectives or standpoints. Fielding (2001) draws a four-fold typology depending on the role of the students and the purposes of the research: 'Students as Data Source', 'Students as active Respondents', 'Students as co-researchers' and 'Students as Researchers' (SAR). Fielding (2011) extended this classification into what he calls "patterns of partnership" or forms of interaction between adults and students at school that included "how adults listen to and learn with

students in school” (p. 74). These are: 1 Students as data source – in which staff utilise information about student progress and well-being ; 2.Students as active respondents– in which staff invite student dialogue and discussion to deepen learning/professional decisions; 3- Students as co-enquirers - in which staff take a lead role with high-profile, active student support; 4. Students as knowledge creators – in which students take lead roles with active staff support; 5. Students as joint authors – in which students and staff decide on a joint course of action together; and 6. Intergenerational learning as lived democracy – in which there is a shared commitment to/responsibility for the common good.

Lodge (2005) developed another typology where student voice approaches can be analysed along two dimensions: the role of the student and the purposes for which participation is being sought. By combining these two dimensions, she suggests four approaches to student involvement: 1. Quality control: students are seen as passive sources of information or consumers providing feedback for quality control purposes of an institution; 2. Students as a source of information: similar to the first approach, students are still seen as passive sources of information but the purposes are for improvement; 3. Compliance and control: students are seen as having the rights and potential to be involved in decisions about school but the purposes are to serve institutional goals; and, 4. Dialogue: students are seen as active participants in their own learning. This approach highlights the value of exploring students’ perspectives in collaboration with other students and teachers. Furthermore, Mitra (2018) proposes a pyramid of student voice. The pyramid involves three levels regarding the development of student voice – listening, collaboration and leadership. As she argues, the higher the students move on this pyramid, there are more benefits for them in terms of learning and growth.

Fielding and Bragg (2003) argue that students can undertake serious and meaningful studies, if they are supported in certain research skills including developing their own research questions (Kellett and Ding, 2004), data collection, data analysis and reporting and finally disseminating their findings to the rest of the school community. Therefore, it can be argued that when students take the role of researchers or co-researchers it is essential to be taught to use data collection techniques (e.g. video recordings, observations, interviews, surveys, etc.), as well as to be offered the necessary tools to

analyse and interpret these data with the help of their teachers and/or researchers (Kellet, 2005).

In this paper, we conducted a review of studies using “students as researchers /co-researchers”, following Fielding’s definitions of the terms. There have been some recent reviews, such as Gonzalez, Hernández-Saca, and Artiles’s (2017) review of students’ voices, limited to studies in the United States published between the years 1990-2010. In addition, Strnadová and Walmsley’s review (2018) focused on the ways the voices of co-researchers with intellectual disabilities are represented in published peer-reviewed journal articles published between 2003 and June 2016. Furthermore, Mager and Nowak (2012) conducted a review on the effects of student participation in decision making at school.

Our own review aims to add to this body of work in two ways:

1. It focuses exclusively on the idea of students taking the role of researchers or co-researchers, rather than focusing on the broader notion of student voice (such as the study of Gonzalez, Hernandez-Saca, and Artiles, 2017)
2. It covers international and recent literature published in this field.
3. It focuses on inclusion and school improvement areas.

As discussed earlier, the links between student voice approaches and inclusion have been made by some authors. We, therefore, wanted to highlight the specific areas that were the focus of studies that employed student voice approaches, whilst at the same time highlight the ways in which students were involved and how these ways relate to the notion of inclusion.

Specifically, this review sets out to address the following questions:

- What areas related to school improvement and inclusion are addressed through studies that employed “Students as researchers/co-researchers approaches”?
- How are student researchers/co-researchers chosen and involved in the research process of these studies?

Method: Literature search

A search of international peer-reviewed published literature was undertaken in the following bibliographic data bases: Australian Education Index, Education Resources Information Center (ERIC) and Social Sciences Citation Index. In addition, we used Scopus indexed journals database.

We searched keywords, titles and abstracts with “students as researchers”, “student as co researchers” and “pupils co-researchers” We combined the following descriptive terms and keywords in the searches to maximize the number of potential studies with “school improvement”, “school change”, “inclusive education” and “inclusion”.

The following criteria guided the study selection process:

1. Source of publication: The studies must have been published in peer reviewed journals. Studies published in book chapters, technical reports, and studies presented at conferences or other non-peer-reviewed journals were excluded.
2. Time range: The studies were published between January 2000 and October 2018.
3. Research methods: The studies were empirical with quantitative, qualitative, or mixed designs. Thus, we did not select entirely theoretical essays or literature reviews.
4. Context: Either primary or secondary schools. Studies in higher education contexts were excluded.
5. Participants: The study participants were students from 4 to 19 years old.
6. Content: Articles that focused on students researching as part of a lesson (e.g an activity where students had to do research to find out about Shakespeare’s book chapters) were not included.
7. Language: The studies were written in English and in Spanish.

These criteria were set since our focus was on inclusion and school improvement as explained earlier, therefore, we wanted only studies carried out in schools. At the same time, in addition to English published work Spanish articles were reviewed since one of us is familiar with Spanish literature.

After screening 375 titles and abstracts and assessing 280 full-texts for eligibility, we identified 42 publications that met the above criteria. Studies were excluded if both reviewers agreed that a study did not meet the eligibility criteria. We resolved

disagreements about whether articles should be included or excluded by reaching a consensus or by asking the opinion of a third researcher. A study needed to meet all above criteria to be included in the review database. From the 42 articles identified through the keyword database some of them were excluded due to two main reasons: a) the studies did not focus on school experiences, and b) the studies were based on the same data set that researchers had used in other studies. Even though the articles focused on different research questions and partly refer to different time points of the original study, the data sets used were the same. Following the suggestion made by Fedhoff, Radisch, and Bischof (2015) in order to avoid a distortion of the results these articles were treated as one study.

So, after applying these selection criteria we identified 27 eligible journal articles. In addition, the list was shared with an expert informant to identify any additional relevant articles, which led to the inclusion of one more article to our list, a total of 28 articles. The following table presents general information about the chosen articles in chronological order.

AUTHORS	COUNTRY	STUDENT RESEARCHERS/ CO- RESEARCHERS	IMPROVE MENT AREAS
1. Kellet et al. (2004)	England	7 students Primary school (9 and 10 years old)	Leisure time and Homework
2. Thomson and Gunter, (2006)	England	8 students Secondary school (12-16 years old)	Bullying
3. Bland and Atweh, (2007)	Australia	Not mention	School students engagement.
4. Leitch, Gardner, Mitchell, Lundy and cols. (2007)	Northern Ireland	50 students Secondary schools (11-14 years old)	Learning assessment
5. Kinash and Hoffman, (2008)	Australia	1 student (12 years old)	School Technology
6. Koirala-Azad, (2008)	Nepal	4 students High school (17-19 years old)	School experiences
7. Roberts and Nash, (2009)	England	Not mention	Learning and teaching experiences
8. Kellett, (2009)	England	12 students Primary schools (11 years old)	Literacy homework
9 Sellman, (2009)	England	6 students Secondary school	Behaviour management

		(13-16 years old)	policy
10 Yonezawa and Jones, (2009)	USA	140 students, 7 High schools (15-18 years old)	Learning, motivation, and school engagement.
11 Carrington, Bland, and Brady, (2010)	Australia	30 students 4 Secondary schools (12-15 years old)	School students engagement
12 Davies, (2011)	England	40 students Secondary schools (14-19 years old)	School Technology
13 Lundy, McEvoy, and Byrne, (2011)	Northern Ireland	8 students (4-5 years old)	Supports and difficulties to adapt to the year 1
14 Rojas, Haya, and Lázaro-Visa, (2012)	Spain	Two Primary schools: 21 students (10-11 years old) and 21 students (11-12 years old)	School experiences
15 Bland, (2012)	Australia	11 students High school (16-18 years old)	School students engagement
16 Mitra and Sarriere, (2012)	USA	6 students Primary school (10-12 years old)	School meals
17 Enright and O 'Sullivan (2012)	Ireland	41 students High school (15-19 years	Physical education

		old)	engagement
18 Bahou, (2012)	Lebanon	13 students Secondary school, year 7 and year 8 (12-14 years old)**	Learning
19 Robinson and Taylor, (2012)	England	Primary Schools: 6 students Year 6 (10–11 year-olds) Secondary schools: 6 students in Year 10 (14-15 year-old)	Learning
20 Nelson and Bishop, (2013)	New Zealand	12 students Secondary school (11-13 years old)	Learning
21 Messiou, (2014)	England	Secondary School 1: 9 children year 9 (13-14 years old)** Secondary School 2: 7 children year 8 (12-13)**	Belonging sense/ marginalisation
22 Mearns, Coyle, and Graaff, (2014)	Netherlands	10 students Secondary School (12-14 years old)	Perceptions bilingual education
23 Kehoe, (2015)	England	15 students Secondary School (14-15 years old)	School culture
24 Domingo-Coscollola, and Hernández, (2015)	Spain	34 students Secondary schools (12-16 years old)**	Learning

25 Parrilla, Gallego, and Sierra, (2016).	Spain	17 students Secondary school (16 and 17 years old)	High school transition
26 Kim (2017)	England	8 students Primary school: 2 (8-9 years old), 3 (9-10 years old) and 3 (10-11years old)	School environment/clim ate, educational aspirations and leisure activities.
27 Vallejos, (2018)	Mexico	102 students (25 groups) Secondary school (12-15 years old)	Bullying
28 Hunter and O'Brien, (2018)	Australia	12 students Secondary school (12-16 years old)	School experiences

Table 1: Studies that employ student researchers approaches

**We have calculated the ages of students in the different countries for comparative purposes

Findings and Discussion

From the 28 articles identified most have been published in the United Kingdom, Australia and Spain. Most of the students who experienced being researchers were from secondary and high schools. Only 7 studies involved younger children (Kellett et al. 2004; Kellett, 2009; Lundy, McEvoy, and Byrne, 2011; Rojas, Haya, and Lázaro-Visa, 2012; Mitra and Sarriere, 2012; Robinson and Taylor, 2012 and Kim, 2017).

The methodological approach of most of the studies was Youth Participatory Action Research (YPAR) (e.g. Bahou, 2012; Enright and O'Sullivan, 2012), which provides young people with opportunities to study social problems affecting their lives and then determine actions to rectify these problems (Camarota and Fine, 2008). Also, we found other methodologies such as collaborative action research (e.g. Messiou, 2014; Nelson and Bishop, 2013), case studies (Mitra and Serriere, 2012; Robinson and Taylor, 2012) and only one study that used ethnography (Domingo-Coscollola and Hernández, 2015).

In the next sections, we address each of our research questions.

- ***Areas related to school improvement and inclusion***

As can be seen on Table 1 a range of topics was explored such as school engagement, learning, behaviour policy and marginalisation. These topics were generated in the studies in different ways.

Most of the studies attempted to stimulate the interest of student researchers for certain topics by introducing a broad area such as engagement and disengagement (Carrington, Bland and Brady, 2010 Bland and Atweh, 2007; Yonezawa and Jones 2009). Similarly, Rojas, Haya and Lázaro Visa (2012) asked students wider questions such as “What would you like to change in your school?, or, likewise in the Hunter and O’Brien (2018) study the generic question “What can improve your school?” was given to start the discussion. These were all seen as common school experiences and the aim was to specify in a more concrete way what students wished to be addressed in schools (Koirala, 2008, Thomson and Gunter, 2006, Roberts and Nash, 2009). Other areas related to curriculum, such as Physical Education (Enright and O'Sullivan, 2012) and ICT (Davies, 2011; Kinash and Hoffman 2008).

On the other hand, in some studies it was the adult researchers that decided the area of improvement, as opposed to the students identifying such areas. For example, Vallejos (2018) focused on bullying, Kellett (2009) on Literacy, Lundy, McEvoy and Byrne (2011) on support and difficulties to adapt to year 1, whereas Mearns, Coyle and Graff (2014) focused on bilingual education. Kehoe (2015) focused on school performance culture and Sellman (2009) focused on the school's behaviour management policy.

Student researchers were sometimes given the freedom to develop an already given topic. For example, in a study by Kellett (2009) children in two schools were given completely free choice on the literacy topic they would like to research. It is interesting, therefore, that half of the number of children from both schools chose to explore the theme of literacy homework. Finally, some researchers preferred not to suggest any topics so as not to influence the student researchers (e.g. Kim, 2017).

- ***How are student researchers chosen and involved in the research process of these studies?***

Students' involvement in the research process in the identified studies varied. Having analysed the various studies we identified a series of phases in the research process where students could be involved, though not all studies involved all phases, neither did all studies followed the order in which we present them here.

Phase 1: Creating students' interest

In many studies, a whole classroom or school consultation took place at the start of the studies (e.g. Domingo-Coscollola and Hernández, 2015 and Nelson and Bishop, 2013, Rojas Haya and Lázaro, 2012; Robinson and Taylor, 2012). For example, in the research carried out by Carrington, Bland and Brady (2010)

students listened to one audio recording of a fake call that a young student makes to a demolition company since she wanted to destroy her school because she felt very unhappy with what happens at school. Afterwards, students were invited to share their school experiences and identify areas to explore relating to improvements in their schools. Similarly, Lundy, MacEvoy and Byrne (2011) asked students: “Why do children have to go to school?” and then the discussions led them to think what they wanted to explore for their studies. In other studies students’ interest was created through the use of mind maps (Domingo- Coscollola and Hernández 2015) or by asking them produce a Students Photo assignment and drawings representing their perceptions of effective teaching and of themselves as learners, as well as illustrate the conditions that support their engagement at school (Nelson and Bishop, 2013).

Therefore, in all the above studies, all students’ voices were gathered in whole classroom situation or with the whole school. Involving all students in the process is in line with the principles of inclusion (Ainscow, Booth and Dyson, 2006; Author, 2017) This was achieved through child-centred activities that allow them to get interested in the study on the one hand, whilst on the other hand, help them feel a sense of ownership about the research process, as opposed to feeling that this is a task assigned to them for helping teachers/researchers. Participatory child-centred activities have been used in a range of studies that focused on inclusion of traditionally marginalised groups of students (e.g. Nind, Boorman and Clark, 2012).

Phase 2: Deciding to participate in the study

The selection of student researchers was approached in different ways in the various studies. Our analysis suggests that studies can be classified broadly into three different groups:

a) those studies that depend exclusively on the students' willingness to be involved (e.g. Koirala-Azad, 2008, Kim, 2017, Yonezawa and Jones, 2009, Lundy, MacEvoy and Byrne, 2011, Sellman, 2009).

b) those studies that adult researchers or teachers set certain criteria that student researchers should meet in order to take the role of researcher. For example, those not previously been involved in projects (Bland, 2012 and Messiou, 2014), students who are perceived to be average in terms of academic performance, students with behavioural issues and disengagement indicators (Kehoe, 2015), those that do not respond to high academic expectations (Domingo-Coscollola and Hernández, 2015), those with different social position inside the classroom (Enright and O'Sullivan, 2012), those deemed as challenging students (Roberts and Nash, 2009), indigenous students (Bland and Atweh, 2007), those from different friendship groups and pupils who were not 'natural leaders' (Robinson and Taylor, 2012); and

c) studies where students themselves choose the ones to take the role of researchers by voting from those that expressed an interest in becoming researchers. For example, in the study by Mearns, Coyle and Graaff (2014) the selection took place by means of a ballot, in which each pupil nominated three peers and stated for themselves whether they wished to take part or not. Of the pupils who wished to volunteer, the five with the most votes were chosen to be the student researchers. There are certainly ethical issues involved with this approach, since the most favourite students end up being given the opportunity to take the role of researchers. Such issues also relate to notions of inclusion.

Phase 3. Training for becoming a researcher

Kellett (2005) suggests that research by children is fundamentally different from adult research and one cannot use the same norms or terms of assessment for both. Research training of co-researchers was reported to be of great

importance in all the reviewed articles, and it was offered in all studies by the academic researchers or postgraduate students. A variety of approaches was used in the identified studies, ranging from two days training sessions to several sessions during a whole course (Bland and Atweh, 2007). Some elements of the training sessions aimed to develop technical skills such as dealing with information sheets and consent forms, operating tape-recorders, formulating hypotheses, taking notes and conducting interviews and using methods such as surveys and interviews (Kellett, 2005). Others focused on developing relational skills, such as learning how to be a good listener or how to relate to people with different background (O'Brien, McConkey, and Garcia-Iriarte, 2014).

The format of the training sessions depended in part on the limitations of researchers' and students' timetables. Many of the sessions followed a traditional format exploring what research is and introducing various methods of data collection, whereas in other cases playful situations were adopted. For instance, children might act as journalists or reporters, interviewing others about their experience and communicating that in a video, newsletter or newspaper. Such examples are compiled by Fielding and Bragg (2003).

Finally, the locations where the trainings took place seemed to be of importance. For example, in the studies of Carrington et al., (2010), Messiou (2014), Domingo-Coscolla and Hernández (2017) the training activities were carried out at the researchers' university. This was valued positively by the students. In other studies, such as Sellman's study (2009) the headteacher's meeting room was used for each meeting, which gave the project a certain status.

Phase 4: Collecting and analysing data

The different methods used to collect data was related to the time and space available to students to carry out the data gathering. Some schools embed the student research projects within school class time, while in other schools, students meet intermittently and are taken out of regular class time for the project. As Kellet (2005) pointed out: “Depending on the nature of the research topic, there may be logistical and child protection issues, which require the presence of an adult when children are collecting data” (p. 19). As she goes on to argue, in such cases, great skill is required in order to achieve the right balance between adult support and adult management.

Most studies used several different methods and techniques for collecting data: interviews and classroom observations (Yonezawa and Makeba’s, 2009); focus groups, interviews and creative structured activities (Leitch, Gardner Mitchell, Lundy et al., 2007); power maps, visual images, observations and interviews (Messiou, 2012); photographs (Enright and O’Sullivan, 2012; Thomson and Gunter, 2006; Lundy, McEvoy, and Byrne, 2011; Nelson and Bishop) data were collected through photographs. Cameras are used widely as a tool through which children, especially young children, can express their views (Clark, 2004). Generally, the use of participatory approaches has been argued to enable the inclusion of students in research (e.g. Nind et al., 2012; Sinha, 2017) and facilitating the authenticity of data generation from students. Overall, most of the studies used a range of approaches with some exceptions such as Robison and Taylor’s (2012) study where only questionnaires were used.

Another interesting point to note is that student researchers usually collect data from other students, albeit in two studies (Yonezawa and Makeba 2009; Vallejos 2018) students conducted interviews with teachers as well. However, in none of the studies analysed student researchers interviewed other stakeholders such as families or educational authorities.

Finally, only few studies explain how data analysis was carried out, which was conducted either by groups of students in schools (e.g. Enright and O'Sullivan, 2012; Davies, 2011; Messiou, 2014; Robinson and Taylor, 2012) or collaboratively with researchers (Parrilla, Gallego and Sierra, 2016; Domingo Coscollola and Hernández, 2015).

Phase 5: Sharing findings with the school community

Student researchers usually presented their findings to their classmates in different ways, such as through the presentation of a DVD that included interviews with some students (Bland, 2012) or research posters (Enright and O'Sullivan, 2012). In other cases, the results were shared only with the teachers. For example, in Bahou (2012) most teachers indicated that the staff presentations served as a mirror that reflected how they treated and related to students and how students felt about their subjects. In some studies, the findings were presented to the whole school (Mitra and Sarriere, 2012; Davies, 2011) or just with the headteachers. Thomson and Gunter (2006) discuss how a conversation with the headteacher led to the identification of school developments.

Phase 6: Implementing changes

Many of the articles reviewed show that students led some projects to help teachers and headteachers in schools (Roberts and Nash, 2009; Carrington, Bland and Brady, 2010; Rojas, Haya and Lázaro Visa, 2012; Nelson and Bishop, 2013; Parrilla, Gallego, and Sierra, 2016). More importantly, in some studies changes were introduced as a result of the students' involvement (e.g. Bland, 2012; Enright and Sullivan, 2012). In Davies's (2011) study, for example, two student researchers were invited to join a committee which makes decision on ICT purchases in the school. Also, in the study by Mitra and

Sarriere (2012), the six girls that were involved worked collaboratively with their teacher and principal to change the school lunch menu. However, there are other studies that we cannot obtain this information.

Phase 7: Disseminating through academic publications and conferences

The dissemination of research could be an important vehicle for ensuring that students' voices are heard more widely. From the 28 articles, only two studies were co-written with student researchers (Kinash and Hoffman, 2008 and Kellet and cols. 2004). Also, in the studies of Enright and O'Sullivan (2012) and Domingo-Coscollola and Hernandez (2017) student researchers presented findings in conferences at universities. Such representation of students in events and activities that tend to be adult led (journal article writing, conference, seminars) gives greater importance and value to students.

Research that involves students as researchers/co-researchers: Further issues to consider

Our analysis highlighted the areas of exploration in studies where students were involved as researchers or co-researchers, as well as the different phases of research in which students are involved when taking such roles. The understandings of these two broad areas have implications for future research that involves students as researchers/co-researchers.

Extending the areas of exploration

As noted above a range of topics of exploration were the focus of the studies analysed. Those were identified through different ways in each of the studies but it is noticeable that only seven studies focused on learning and teaching issues. As can be seen, studies focused on more generic school issues, such as bullying, outside space, coexistence policy, school engagement etc. This is similar to the findings of Gonzalez, Fernández-Saca, and Artiles (2017) for

student voice studies in the US. This could be because students are more interested in wider issues of the school when they are given the options to explore what they wish, or that issues of learning and teaching are seen by student researchers to be related to adults in schools. For example, in the study of Robinson and Taylor (2012) even though the students were given the freedom to choose what they focus on, it seemed that students considered that areas relating to pedagogy or to certain aspects of the school organization could not be within their remit in terms of developing a research project, as these are ‘bigger things... that the head teacher and the governors sort out’ (p. 40), as one of the student researchers said. It is therefore, important to explore ways in which this kind of thinking can be challenged, so that students feel that they are indeed in a position to get involved with those “bigger ideas”. A possible way forward, could be a better articulation of potential areas of exploration at the start of the studies, instead of the use of open-ended questions as we saw in some of the examples mentioned earlier. For example, if students are given examples of possible topics, including learning and teaching issues, they might be more willing to extend their areas of investigation, instead of viewing certain issues as ones that are only for adults. Therefore, the role of adults here should be that of providing examples to allow students to see that they are in a position to explore a range of issues. According to Fielding and Bragg, (2003) students as researchers have a large number of beliefs and observations and might have quite different views of what the experience of their learning means or what matters. As they argue, “Even when they identify similar issues as important, they can mean quite different things by them” (p.5). It is, therefore, necessary to dedicate enough time so that students’ ideas are fully explored through the research process and as Biddle (2017) argues, teachers and students sharing the same language on important school issues for students, helps to change patterns of interaction between them.

The role of adults

It is interesting to note, that despite the emphasis on student empowerment through such approaches, many of the decisions in studies that involve students remain with adults, such as who is going to be the researcher or what is going to be studied. Though this is understandable to some extent, especially when the studies were led by researchers with specific agendas that they wish to explore (e.g. Messiou, 2014), in the cases where teachers led such processes it could be argued that there is more flexibility to allow students to take most decisions. On the other hand, teachers use such approaches in order to understand what they are interested in school many times, and therefore, students' interests might not be prioritised. This entails certain dangers such as "unintentionally involve students in coercive forms of organisational change due to pressures related to performance culture" (Kehoe, 2015, p.106). A key distinction made by Fielding (2001) as one of the differences between student co-researchers and student researchers, is that in the latter role students become initiators of the research process by identifying the area of exploration and the methods that they will use. Though this was not the case for most of the studies reviewed here, there were studies where the students identified the areas that they wished to investigate. Therefore, it is important to consider other ways in which students can move into the roles of independent researchers, or as Mitra (2018) argued to move into the top of the pyramid of student voice, taking the role of leaders. Decisions mostly being made by adults raise issues of hierarchy within schools. As Lynch and Lodge (2002) acknowledge power relations between students and teachers tend not to be problematized and are hierarchical. This has implications in relation to student involvement in processes such as the ones described here. For example, in some studies, the researchers recognise that that they were unable to elicit the authentic voice of the student over the voice of the adults involved (e.g. Robinson and Taylor, 2012). Therefore, adults should be careful in ensuring that they facilitate, as opposed to determine, the work

carried out by students. Such ways of working when involved in student researchers'/co-researchers' initiatives relate to notions of inclusion that call for ways of enabling active participation of all (Booth and Ainscow, 2002; Mittler, 2000).

At the same time, hierarchical roles in schools when using such approaches can also have positive implications. For example, for student researchers to be able to have an impact in what is happening in schools we found that the role of the senior leaders in schools was instrumental. In some examples, the principal was invited to attend various meetings related to the work of student researchers (Sellman, 2009; Thomson and Gunter, 2006) and this was seen as important in ensuring that the findings of the students' research were of benefit to the school. Overall, the role of senior leaders in supporting such approaches is an element that could be further explored.

A distinctive step in the process

The steps that we suggest based on this analysis, resonate with steps suggested earlier by Fielding and Bragg (2003). According to them the following steps can be used in student researchers approaches: involving students, choosing topics to research, establishing staff roles, matching enquiry strategies to the topic, setting a time scale and distributing tasks amongst those involved, analysing the data and writing it up, sharing the findings, celebrating it, responding to it. There is certainly overlap between these steps and what we identified however, we would like to draw attention to the first step that has emerged through our analysis and highlight the need for formative work before the students even start the process of becoming researchers. We view the specific step as important not least in relation to the inclusion of all students.

Conclusion

The growing interest in student voice approaches, with a particular focus on students as researchers/co-researchers, has increased over the last 20 years. What this review of studies has indicated, is that more needs to be done in order for student researchers to take more prominent roles and ultimately become the leaders of such approaches. Having students taking the role of researchers can lead to school improvements and should be seen as beneficial for both teachers and students. At the same time, students involved in such approaches are empowered and feel more included in schools. However, such approaches involve certain challenges, not least the role of adults and how this allows or prevents an authentic engagement on the part of student researchers. Greater efforts in this respect are needed, on the part of adults in schools, as well as on the part of adult researchers who are involved in such work. Such efforts can lead to what Fielding (2011) calls intergenerational learning as lived democracy and, consequently, to the creation of more inclusive schools.

We consider that the phases that have emerged through this analysis may be a step forward in this respect, for future studies. It is necessary to consider these phases in order to create a trusting atmosphere among the students, without them feeling that they are being questioned by adults, in spaces where their contributions really matter. Otherwise, if students do not feel that they have freedom and power, such approaches can turn out to be a counterproductive practice.

Acknowledgements

We would like to thank Professor Michael Fielding for being the expert informant for this study.

References:

Ainscow, M. 1999. *Understanding the Development of Inclusive Schools*. London: Falmer Press. Ainscow, M. 2007. "From Special Education to Effective Schools for All: A Review of Progress So Far." In *The SAGE Handbook of Special Education*, edited by L. Florian, 146–159. London: SAGE.

Ainscow, M., T. Booth, and A. Dyson. 2006. *Improving Schools, Developing Inclusion*. London: Routledge.

Bahou, L. 2012. "Cultivating Student Agency and Teachers as Learners in One Lebanese School." *Educational Action Research* 20 (2): 233–250.

Biddle, C. 2017. "Trust Formation When Youth and Adults Partner to Lead School Reform: A Case Study of Supportive Structures and Challenges." *Journal of Organizational & Educational Leadership* 2 (2): 1–28.

Bland, D. 2012. "Imagination for Re-Engagement from the Margins of Education." *The Australian Educational Researcher* 39 (1): 75–89.

Bland, D., and B. Atweh. 2007. "Students as Researchers: Engaging Students' Voices in PAR." *Educational Action Research* 15 (3): 337–349.

Booth, T., and M. Ainscow. 2002. *Index for Inclusion: Developing Learning and Participation in Schools*. Bristol: Centre for Studies on Inclusive Education, United Kingdom.

Cammarota, J., and M. Fine. 2008. "Youth Participatory Action Research. A Pedagogy for Transformational Resistance." In *Revolutionizing Education: Youth Participatory Action Research in Motion*, edited by J. Cammarota, and M. Fine, 1–13. New York: Routledge.

Carrington, S., D. Bland, and K. Brady. 2010. "Training Young People as Researchers to Investigate Engagement and Disengagement in the Middle." *International Journal of Inclusive Education* 14 (5): 449–462.

Clark, A. 2004. "The Mosaic Approach and Research with Young Children." In *The Reality of Research with Children and Young People*, edited by V. Lewis, M. Kellett, C. Robinson, S. Fraser, and S. Ding, 157–180. London: Sage.

Cook-Sather, A. 2006. "Change Based on What Students Say': Preparing Teachers for a Paradoxical Model of Leadership." *International Journal of Leadership in Education* 9 (4): 345–358.

Davies, P. M. 2011. "Student Participation in School ICT Policy- Making: A Case of Students as Researchers." *Management in Education* 25 (2): 71–77.

Domingo-Coscollola, M., and F. Hernández. 2015. “Jóvenes que investigan en Educación Secundaria: alternativas para aprender.” *Revista de currículo y formación del Profesorado* 19 (2): 133–146.

Enright, E., and M. O’Sullivan. 2012. “Physical Education in All Sorts of Corners: Student Activists Transgressing Formal Physical Education Curricular Boundaries.” *Research Quarterly for Exercise and Sport* 83 (2): 255–267.

Feldhoff, T., F. Radisch, and L. Bischof. 2016. "Designs and Methods in School Improvement Research: A Systematic Review." *Journal of Educational Administration* 54 (2): 209–240.

Fielding, M. 2001. "Students as Radical Agents of Change." *Journal of Educational Change* 2: 123–141.

Fielding, M. 2011. "La voz del alumnado y la inclusión educativa: una aproximación democrática radical para el aprendizaje intergeneracional." *Revista interuniversitaria de formación del profesorado* 70: 31–62.

Fielding, M., and S. Bragg. 2003. *Students as Researchers: Making a Difference*. Cambridge: Pearson.

González, T., D. Hernandez-Saca, and A. Artiles. 2017. "In Search of Voice: Theory and Methods in K-12 Student Voice Research in the US, 1990–2010." *Educational Review* 69 (4): 451–473. doi:10.1080/00131911.2016.1231661.

Hall, V. 2017. "A Tale of Two Narratives: Student Voice – What Lies Before Us?" *Oxford Review of Education* 43 (2): 180–193. doi:10.1080/03054985.2016.1264379.

Hopkins, D. 2007. *Every School a Great School. Realizing the Potential of System Leadership*. London: Open University Press.

Hunter, J., and L. O'Brien. 2018. "How Do High School Students Create Knowledge About Improving and Changing Their School? A Student Voice Coinquiry Using Digital Technologies." *International Journal of Student Voice* 3 (3): 11–29.

Kehoe, I. 2015. "The Cost of Performance? Students' Learning About Acting as Change Agents in Their Schools." *Discourse: Studies in the Cultural Politics of Education* 36 (1): 106–119.

Kellett, M. 2005. *How to Develop Children as Researchers: A Step by Step Guide to Teaching the Research Process*. London: Paul Chapman.

Kellett, M. 2009. "Children as Researchers: What we can Learn from Them About the Impact of Poverty on Literacy Opportunities?" *International Journal of Inclusive Education* 13 (4): 395–408.

Kellett, M., and S. Ding. 2004. "Middle Childhood." In *Doing Research with Children and Young People*, edited by S. Fraser, V. Lewis, S. Ding, M. Kellett, and C. Robinson, 11–29. London: Sage.

Kellett, M., R. Forrest, N. Dent, and S. Byrne. 2004. "Just Teach Us the Skills, We'll do the Rest: Empowering Ten-Year-Olds as Active Researchers." *Children and Society* 18 (5): 329–343.

Kim, Y. 2017. "Participation or Pedagogy? Ambiguities and Tensions Surrounding the Facilitation of Children as Researchers." *Childhood* 24 (1): 84–98.

Kinash, S., and M. Hoffman. 2008. "Child as Researcher: Within and Beyond the Classroom." *Australian Journal of Teacher Education* 33 (6): 76–93.

Koirala, S. 2008. "Unravelling Our Realities: Nepali Students as Researchers and Activists." *Asia Pacific Journal of Education* 28 (3): 251–263.

Leitch, R., J. Gardner, S. Mitchell, L. Lundy, O. Odena, D. Galanouli, and P. Clough. 2007. "Consulting Pupils in Assessment for Learning Classrooms: The Twists and Turns of Working with Students as co-Researchers." *Educational Action Research* 15 (3): 459–478.

Lodge, C. 2005. "From Hearing Voices to Engaging in Dialogue. Problematizing Students Participation in School Improvement." *Journal of Educational Change* 6: 125–146.

Lundy, L., L. McEvoy, and B. Byrne. 2011. "Working with Young Children as Co-Researchers: An Approach Informed by the United Nations Convention on the Rights of the Child." *Early Education and Development* 22 (5): 714–736.

Lynch, K., and A. Lodge. 2002. *Equality and Power in Schools: Redistribution, Recognition and Representation*. London: Routledge Falmer.

Mager, V., and P. Nowak. 2012. "Effects of Student Participation in Decision Making at School." *A Systematic Review and Synthesis of Empirical Research Educational Research Review* 7 (1): 38–61.

Mearns, T. L., D. Coyle, and R. de Graaff. 2014. "Aspirations and Assumptions: A Researcher's Account of Pupil Involvement in School-Based Research." *International Journal of Research and Method in Education* 37 (4): 442–457. doi:10.1080/1743727X.2014.925440.

Messiou, K. 2012. *Confronting Marginalisation in Education: A Framework for Promoting Inclusion*. Abingdon, GB: Routledge.

Messiou, K. 2014. "Working with Students as Co-Researchers in Schools: A Matter of Inclusion." *International Journal of Inclusive Education*. doi:10.1080/13603116.2013.802028.

Messiou, K. 2017. "Research in the Field of Inclusive Education: Time for a Rethink?" *International Journal of Inclusive Education*, 1–14. doi:10.1080/13603116.2016.1223184.

Messiou, K. 2019. "The Missing Voices: Students as a Catalyst for Promoting Inclusive Education." *International Journal of Inclusive Education*. doi:10.1080/13603116.2019.1623326.

Mitra, D. 2009. *Student Voice in School Reform: Building Youth-Adult Partnerships That Strengthen Schools and Empower Youth*. Albany, NY: State University of New York Press.

Mitra, D. 2018. "Student Voice in Secondary Schools: The Possibility for Deeper Change." *Journal of Educational Administration* 56 (5): 473–487. doi:10.1108/JEA-01-2018-0007.

Mitra, D., and S. Sarriere. 2012. "Student Voice in Elementary School Reform: Examining Youth Development in Fifth Graders." *American Educational Research Journal* 49 (4): 743–774.

Mitra, D., S. Serriere, and D. Stoicovy. 2012. "The Role of Leaders in Enabling Students Voice." *Management in Education* 26 (3): 104–112.

Mittler, P. 2000. *Working Towards Inclusive Education: Social Contexts*. London: David Fulton.

Nelson, E., and P. Bishop. 2013. "Students as Action Research Partners: A New Zealand Example." *Middle School Journal* 45 (2): 19–26. Columbus Tomo.

Nind, M., G. Boorman, and G. Clark. 2012. "Creating Spaces to Belong: Listening to the Voice of Girls with Behavioural, Emotional and Social Difficulties Through Digital Visual and Narrative Methods." *International Journal of Inclusive Education* 16 (7): 643–656.

O'Brien, P., R. McConkey, and E. Garcia-Iriarte. 2014. "Co-Researching with People who Have Intellectual Disabilities: Insights from a National Survey." *Journal of Applied Research in Intellectual Disabilities* 27: 65–75.

Parrilla, A., C. Gallego, and S. Sierra. 2016. "When Educational Transitions and Supported by Students." *Journal of Research in Special Educational Needs* 16 (1): 1104–1107.

Rainer, J. D., and M. W. Matthews. 2002. "Ownership of Learning in Teacher Education." *Action in Teacher Education* 24 (1): 22–30.

Roberts, A., and J. Nash. 2009. "Enabling Students to Participate in School Improvement Through a Students as Researchers Programme." *Improving Schools* 12 (2): 174–187.

Robinson, C., and C. Taylor. 2012. "Student Voice as a Contested Practice: Power and Participation in Two Student Voice Projects." *Improving Schools* 16 (1): 32–46.

Rojas, S., I. Haya, and S. Lázaro. 2012. "Student Voice in School Improvement: Children as Researchers in Primary School [La voz del alumnado en la mejora escolar: Niños y niñas como investigadores en Educación Primaria]." *Revista de Educación* 359: 81–101.

Rudduck, J., and M. Fielding. 2006. "Student Voice and the Perils of Popularity." *Educational Review* 58 (2): 219–231.

Rudduck, J., and J. Flutter. 2004. *How to Improve Your School: Giving Pupils a Voice*. London: Continuum.

Sandoval, M. 2011. "Aprendiendo de las voces de los Alumnos y Alumnas para construir una escuela Inclusiva." *REICE. Revista Iberoamericana sobre calidad, eficacia y cambio en Educación*, 9(4), 114–125.

Sellman, E. 2009. "Lessons Learned: Student Voice at a School for Pupils Experiencing Social, Emotional and Behavioural Difficulties." *Emotional and Behavioural Difficulties* 14 (1): 33–48.

Sinha, P. 2017. "Listening Ethically to Indigenous Children: Experiences from India." *International Journal of Inclusive Education* 21 (3): 272–285.

Strnadova, I., and J. Walmsley. 2018. "Peer- Reviewed Articles on Inclusive Research: Do Co- Researchers with Intellectual Disabilities Have a Voice." *Journal of Applied Research in Intellectual Disabilities* 31: 132–141.

Thomson, P., and H. Gunter. 2006. "From 'Consulting Pupils' to 'Pupils as Researchers': A Situated Case Narrative." *British Educational Research Journal* 32 (6): 839–856.

UNESCO. 2017. *A Guide for Ensuring Inclusion and Equity in Education*.

Paris: UNESCO. Vallejos, C. 2018. "Alumnos como investigadores. Buscando nuevos significados del acoso escolar." *Entropía* 2 (3): 33–51.

Veck, W., and M. Hall. 2018. "Inclusive Research in Education: Dialogue, Relations and Methods." *International Journal of Inclusive Education* 2–16. doi:10.1080/13603116.2018.1512659.

Yonezawa, S., and J. Makeba. 2009. "Student Voices: Generating Reform from the Inside Out." *Theory Into Practice* 48 (3): 205–212.

