A case for complexity-informed participatory action research with young people

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Abstract
This article addresses the fundamental issue of using qualitative research methods that encourage young people’s participation in settings that more commonly promote neoliberalism at the expense of social justice. Through a case study in an English primary school, it demonstrates how complexity-informed participatory action research could be advanced to enable young people’s participation rights, by building intergenerational relationships that reposition young people and adults within systems and by revealing local and global complexities involved in conceptualising transformational resistance. The developing method is discussed providing an original contribution to knowledge and practice in research with young people, with potential to reconcile schooling and socially just strategy.

Keywords
child participation, complexity theory, cooperative learning, participatory action research, schools, social justice

Introduction
New approaches are needed to understand the contexts in which young people are seeking social justice. In an increasingly complex and networked technological era, pursuit of economic growth serves to mask both human interdependence with the natural world and the threat that rapid cumulative consumption poses to our existence through its unintended effects (Urry, 2003). Whilst new generations grow up with capitalism as the ‘normal’ way of doing things, some of them are also recognising that alternative forms of being are possible. Their visions may be side-lined as radical because they promote the notion that all human beings have an equal right to life and to use the world’s resources, but also responsibility to safeguard these for generations to come. Yet young
people’s activism in search of social justice is gaining traction as disenfranchised generations, who lack influence over the powerful structures that proliferate dominant capitalist ideology, turn to climate school strikes and extinction rebellion campaigns, to act upon their concerns. This is not just an extension to decades of environmental concern but recognition of these problems as complex matters of social as well as environmental justice, brought into view through rapidly expanding and fluid information and communication systems, making connections that previous generations have failed to address (Fisher, 2016; Thomas, 2019).

Young people are navigating this interplay of multiple networks and structures when seeking social justice in localised settings such as schools; here complexity thinking has relevance for understanding these interconnections (Urry, 2003, 2005). Standardisation through schooling categorises young people as succeeding or failing, restricting their options for exploring and acting upon their own concerns and diminishing relationships by neoliberal focus on the individual (Wrigley, 2015). Knowledge is presented as neutral truth, critical thinking forsaken and collective construction and understanding curtailed (Hajisoteriou and Angelides, 2019). Radical education may resist this, revealing dominant political influences in curricula or by encouraging inclusive relationships that challenge oppression, but strategies fail to connect theory and process, content and methodology, necessary for sustainable change (Fielding, 2007).

Complexity thinking which draws on a group of theories that address both order and disorder in natural and social systems (Urry, 2005) provides a potentially useful lens for unpicking the interplay of economic, ideological, physical and virtual structures that young people are navigating. By recognising forceful structures in young peoples’ lives as operating through complex adaptive systems (Holland, 2006) complexity thinking can assist researchers and young people in understanding creativity and novelty as essential for emergence and change (Byrne and Callaghan, 2014; Prigogine, 1997; Snyder, 2013).

In young people’s quest for local and global justice, participatory action research (PAR hereafter) offers a form of transformational learning and resistance (Lundy and McEvoy, 2012), by revealing the links between local contexts and international phenomena (Larkins, 2016) and by seeking action that enables the greatest possibility of social change (Solórzano and Delgado-Bernal, 2001). Yet, despite their radical origins and potential, models of PAR by and with young people in educational settings tend to remain focused on local practices rather than global tensions (e.g.: Cammarota and Fine, 2008; Kim, 2017); focusing attention on particular groups may reinforce rather than counter their marginalised status for change (Fielding, 2004). To offer young people tools for liberation, researchers and educationalists must develop models of PAR that enable deeper evaluation and understanding of the complex interconnections between local and global forces as well as enabling all those involved to imagine and seek what could be, critique what has been, perturb what is (Cahill, 2007) and importantly do this together. This complexity-informed PAR or CIPAR, fosters the collective imagination, situating individual learning in a broader sociohistorical context, where both agency and cooperation matter (Freire, 1970; Wall, 2019).

Illustrated by a case study involving a primary school class of 10–11-year-olds in northern England, the article focuses on how the process of CIPAR developed, acknowledging the young people as capable, active, participating members of communities (James et al., 1998) who can and do influence social spaces and change (Oswell, 2013). The design focused on cooperative intergenerational student-led research – young people working together to investigate what matters to them and researching with adults from their communities to achieve this. Through this, local and global barriers to their agency were revealed and resisted, suggesting how young people’s search for social justice could be embedded in school practice to counteract the hegemony of neoliberalism (Hajisoteriou and Angelides, 2019), and providing a persuasive argument for young people’s influence on schooling and in the social world (Solórzano and Delgado-Bernal, 2001; Thomas, 2019).
PAR is an ongoing process of inquiry, action and reflection, through co-learning, co-creation and organisational transformation to overcome issues faced by social groups (Bernard, 2000; Brydon-Miller and Maguire, 2009; Hall, 2005; Kindon et al., 2007). Recognising and valuing insider knowledge, developed through social experience, it is contextually and temporally conceived (Cammarota and Fine, 2008; Freire, 1970; Walby, 2007). PAR has more to offer young people than taking part in research that might lead to change, because change can occur through the process itself, when it is rights-based and enables purposeful action (Lundy and McEvoy, 2012). It enables young people to perceive the dominant forces behind social structures and create action more suited to their circumstances (Cammarota and Fine, 2008). However, like adults, not every young person has opportunities to exercise participation rights due to dominant conditions (Moran-Ellis and Sünker, 2018). Evidence of young people’s critique or reconstructing of the normative assumptions that maintain their subjugation during research is scarce (Wall, 2019).

In acknowledging that the world is complex and that young people’s lives are influenced by multiple and interconnecting factors, we must also acknowledge the limitations of our understanding of this world (Cilliers, 2005). PAR removes the possibility of pre-supposing research processes and outcomes, but researchers and participants remain bound by system constraints (Cox, 2008, 2012) which also raises ethical questions about adults’ influence and control in young people’s lives. Understanding how young people can and do find ways of transformational resistance offers the hope of positive change (Larkins, 2016; Solórzano and Delgado-Bernal, 2001). This could be extended through opportunities to embrace possibility and recognise the interdependence of agents and systems (Mercieca and Mercieca, 2013). Through a complexity lens young people, like adults, are agents within systems, interacting and influencing the spaces through which they exist. Adult protection can hide this participation leading to tensions (Oswell, 2013); hence an ‘expanded notion of agency’ is required (Chesworth, 2018: 9).

PAR is widely associated with critical pedagogy where students’ desire to shape their own learning and bring about positive social change are maximised by unmasking inequalities (Freire, 1970); it is closely linked with maximal approaches to citizenship that embrace activism and creativity (Heggart and Flowers, 2019). Participants work together to identify ‘the problem’ as they experience it, the facilitator reflecting this back to them as a problem to be worked on which they can research, and then act upon, through new understandings; thus, it is a critical and collective act requiring cooperation to achieve transformation (Solórzano and Delgado-Bernal, 2001). In young people’s lives, such opportunities may present in close communities such as family or friendships but less so in complex systems such as schooling, even though it is through these that dominant global forces perhaps have greater impact.

Many complex systems, including schooling, position young people as subordinate, in need of protection, hence their empowerment is through adults, rather than by challenging these constructs (Wall, 2019). Oversimplification of the relationships involved, diverts attention away from alternative constructs of young people, and generational positioning (Larkins, 2019), losing sight of dominant ideology and its effects (Larkins, 2016). Complexity thinking provides a useful lens through which to unmask these and the ethical choices inherent when adults remove possibility from young people’s lives (Byrne and Callaghan, 2014). It asks essential questions about spaces, abstract ordering and heterodox understanding (Oswell, 2013) that are ill-considered in education policy.

The near world-wide signing of the United Nations Convention on the Rights of the Child (UNCRC) since 1989, repositions young people globally as rights holders (Moran-Ellis and Sünker, 2018) whilst trying to balance a need for their protection from adults who would do them harm. Besides rights to provision and protection, young people have participation rights including:
the right to a view in all matters that affect them (Article 12); the freedom, information and association to be able to construct their own views and realise their rights (Articles 13–17); use their own language and play (Articles 30 and 31); and access to broad education that supports them to flourish (Articles 28 and 29). The UK has not assured young people’s participation rights in educational settings (CRC, 2008) having failed to address imbalance between ideas of young people as being and as becoming (James et al., 1998). Critics of the CRC note that limited constructs of participation such as ‘voice’, deflect attention to agency and cooperative action (Wyness, 2013); even so mechanisms such as questionnaires, or teacher-led student councils continue to dominate the UK’s efforts at UN compliance (see HM Government, 2014).

Whilst arguments have been made for wider implementation of young people’s participation rights (Kiili & Larkins, 2018), this remains a disputed field in systems which tend to subordinate young people (Moran-Ellis and Sünker, 2013; Tisdall, 2015). PAR can perturb the system (Martin and Sturmberg, 2009) by addressing roles and relationships that maintain inequality. We know that young people can describe and discuss concepts about organisational structures in society (Dias and Menezes, 2013); research that enables communities to identify and find collaborative ways to overcome problems and build resilience, provides a more accurate and authentic analysis of social reality (Hall, 2005: 12) closing the gap between local and expert knowledge systems, and generating more rigorous data (Cahill, 2007). However, where research involves only one group of stakeholders, for example schoolchildren, what is presented is incomplete and risks further control by those who wield most power through their normative assumptions (Fielding, 2004). Introducing other adults to PAR with young people, enables adults and young people to understand the importance of their relationships as a pre-requisite for change (Mannion, 2007); to act together, each person must recognise what they can contribute. Cooperative learning, scarce in the UK, develops this through interaction, collective purpose, and sharing of experiences (Hawkins, 2015; Yorks, 2015). This collective approach can challenge the individualism sometimes promoted when young people’s research is viewed as a pedagogic tool (Kim, 2017).

Johnson and Johnson (2016) describes elements pertaining to inclusive cooperative learning: positive interdependence, trust and trustworthiness, constructive conflict resolution, solidarity, justice and fairness; facilitators must think carefully about behaviour that they model. Group members need time to grow their involvement through communication and planning, enabling them to consider the emotional consequences of conflict and choice at an early stage and exploring why decisions need to be made; in these spaces, disagreement can be positive in that it is a catalyst to find new solutions – ‘creative disagreement’ rather than a fight for control (Fielding, 2004: 309). Building spaces for participation in this way is challenging but provides valuable social learning opportunities (Lundy and McEvoy, 2012; Percy-Smith, 2010; Torres-Harding et al., 2018); several or many meetings may be necessary.

Complexity thinking can provide a means of setting PAR with young people in a wider theoretically grounded understanding of social space, addressing a gap in existing literature (Thomas, 2019). It enables drawing out of connections across disciplines. According to Urry (2005), theorists such as Giddens and Castells have increasingly drawn from complexity concepts to explore interconnections between the natural and social worlds although they do not explicitly acknowledge the broad group of theories. Complexity theories are concerned with how systems adapt and evolve, self-organising and re-arranging around the movements of that or those within them, bringing in to view how these flows may influence later events (Byrne and Callaghan, 2014; Prigogine, 1997; Snyder, 2013). They cannot provide researchers with precise means to address problems but can help to scrupulously explore why these problems are so difficult, reinforcing qualitative research rather than distracting from it (Cilliers, 2005). Structures are revealed as more than local conditions influenced by policy and practice, but as operating through complex adaptive systems
(Holland, 2006) capable of producing novelty (Byrne and Callaghan, 2014; Prigogine, 1997; Snyder, 2013) as they respond to global as well as local forces (Urry, 2005). Emergence is crucial as it is the realisation that systems are not just a sum of their parts (Cox, 2008) but adapt to forces within and outside (Holland, 2006). Hence, schools can conceivably always be influenced by the everyday actions of those within (Fielding, 2007).

In complexity thinking, all actors (including young people) exert influence in their interactions through multiple frames of reference to other systems (Walby, 2007), thus, schools can be seen to result from what can be described as distributed decision making (Heggart and Flowers, 2019), which presents opportunities for research. Through their co-presence, young people and adults can honestly assess their situations to recognise their influence. Cooperative learning can enable this but requires further research to understand the intergenerational relationships in school that present favourable conditions. The case study described in the following sections presents the first stage of developing CIPAR with a school class of young people and discusses how they adapted to conditions within and outside the schooling system (Holland, 2006). It acknowledges the relational elements and how new and unexpected properties emerged as these changed. Important moments are described using selected data from the study.

**A case study for complexity informed PAR**

In order to develop CIPAR and understand how it might be a useful means of change in schools, the research engaged a primary school class in asking ‘What are schools for?’ This article focuses on the CIPAR process and findings from the research are discussed in Crook (2020). The aim was to develop CIPAR by using it to: find out what young people, their teachers and parents believed young people’s participation in schools is or could be; create spaces for dialogue, action and change in the classroom; and consider how this might work towards enabling active or justice-oriented participation by shaping spaces for the exercise of young peoples’ rights in settings where they spend a great proportion of their lives.

The project to develop CIPAR was designed by the first author, working with 24 young people aged 10–11 and members of their community, in northern England over a period of one afternoon per week for 6 weeks. The school was a Catholic primary school, drawing students from the town, the rural areas beyond and an adjacent larger town which has some of the most deprived wards in England, the cohort reflecting this broad socio-economic mix. To avoid selecting one school class in favour of another, recruitment was limited to schools with one class per school year. The upper primary age group was selected as a less researched group in childhood studies; the research activities would provide opportunities to develop participatory skills, useful for when the young people transferred to secondary school later in the year.

University of Central Lancashire and BERA guidelines for ethical research were followed; the design approved by the university ethics committee. Assumed parental consent was used as the class activities provided an educational opportunity during timetabled ‘lessons’ over the period of research; however, parents were fully informed and given the option to discuss or withdraw their child from the research although none chose to do so. Young people’s informed consent (Gallagher et al., 2010) was ongoing throughout through written consent and discussion, negotiation of the activities and choice of whether to take part in data collection such as recordings; consent could be withdrawn at any time although again none chose to do so. We acknowledge that young people’s consent in schools where attendance is compulsory is controversial (Alderson and Morrow, 2011), however, we were satisfied that no coercion was used during recruitment or during the period of the study and that the teacher was genuinely open to student’s suggestions and agency.
An objective of CIPAR is to foster shared meaning making in school, by building inclusive spaces in which all young people and adults are valued for who they are and what they bring to the group, where each person can utilise their power towards common goals. To ensure rights informed practice, information about the UNCRC and participation was shared with teachers who were supportive of this. This is one limit of the single school project; further research is needed to understand how school and participant characteristics might influence CIPAR as well as outcomes.

Eleven volunteers were also recruited from the wider school community – parents, grandparents, siblings, school governors. Primary school classes in England tend to be closed spaces dominated by one teacher, sometimes supported by assistants. It was anticipated that the research would enable the young people and adults to work together, understand each other’s knowledge and views about what happens in schools, co-construct new knowledge and co-create outcomes.

The CIPAR process was developed through activities designed to encourage young people to (1) identify their situation (2) consider barriers to participation (3) design young people led research to understand the problems (4) carry this out (5) analyse what they found out (6) use this to engage in dialogue with adults.

The researcher (first author) facilitated participatory workshops through sustained interaction with the class teacher and young people who used drawing and discussion techniques to explore the meaning of participation in their different communities, talking about families, friendships, clubs and school and describing concepts about organisational structures. Data relating to their views about participation – having active influence in what happens in schooling – was collected as the process of CIPAR progressed. They then planned and conducted interviews with the volunteers about their experiences at school, analysed and presented their findings about the differences between their own and the adults’ experiences. They then planned and conducted focus groups at an intergenerational mini-conference to explore what schooling should be for. Each stage was discussed and planned with the young people and their teacher and notes made in a reflective journal alongside audio and video recordings from the workshops.

Other data generated included: questionnaires; young people’s interviews with the adult participants; young people’s responses to these; notes and pictures drawn by seven groups during the intergenerational focus groups; and evaluation at various stages (see Crook, 2020). Additional examples are included here to illustrate how CIPAR developed as discussed in this article.

Findings and analysis:

Perspectives about young people’s participation

Before the workshops, all 24 young people completed a questionnaire that asked them about school and their participation. When asked who they think really decides what should happen in schools, and how they do this, most replied: ‘The government’ – ‘make inflexible rules’, ‘going to court’, ‘by people’s opinions’, ‘by having a big argument to try and finally get the right answer’, ‘because the week we did SATs every other school in the UK did SATs on that week’, and ‘they do this by telling the teachers when they get fully qualified’. Others mentioned: ‘Education Minister, he sets targets for schools;’ ‘Governors’ – ‘I think they tell the teachers what to do;’ ‘The Head teacher;’ – ‘by telling other teachers;’ and ‘The Teachers’, – ‘I think they have a meeting of what they will do throughout the day’. Three mentioned children either through the headteacher ‘She talks to the teachers and children’, or with parents and teachers. When asked what they liked about school most mentioned friends and the teachers; some described activities such as sport, art and playtime. In terms of what they did not like, they mentioned the length of the day and relationships: ‘people hurt bullying;’ wanting ‘more school trips and fun lessons’, ‘changing rooms;’ and ‘What kind of subjects we have’. All thought school should ‘help them to be good at making decisions’, most that
this was totally important, four indicating this was a bit important and one that it was not important. They all thought school should help them ‘think for themselves’ with three indicting this was a bit important and one that it was not important. Fourteen thought it was totally important for school to help them be ‘good citizens’ with the rest choosing quite or a bit important.

In one of the first workshop activities, building on the survey to think about their situation, the young people were asked to draw groups they belonged to and organise these to show where they had most influence. They discussed how they recognised most influence at home, in friendships, interest groups and during play at school. The young people viewed participation in relational terms; their agency or ability to act was part of these collective accomplishments resonating with Oswell (2013). They talked about community as ‘getting on together’, ‘talking’, ‘listening’, ‘being bothered’ and ‘caring about whether it works’. However, they felt that school did not enable their participation in decisions about education itself; they had little if any opportunity to influence what happens in lessons (other than by their behaviour); and they believed their participation might lead to disruption in their learning and behavioural problems.

A second activity where the young people expressed their views about participation or having some influence in what happens in their lessons and classroom, took the form of a vote where they also had to give a reason: 16 indicated that ‘yes’ they should be able to participate in decisions about schooling and their views were about ownership, choice and benefits for learning, for example:

Yes because we are the ones that go to school and have to do these things so we
should have a say in what we do.

Because children should have their own opinions, and if they have a good idea, then
all the children might like it.

Eight against mentioned fears about poor behaviour or consequences of choices to others, as well as suggesting it is teachers’ responsibility:

Because not everyone would get to learn about what they wanted because they would
all want differently and we might not learn about what we need to.

Because some of the children might decide to do P.E. all day and never do Maths or
English ever again.

It could cause chaos because kids could say they want an extra play or games for an
hour.

These discussions focused mainly on the local context but were not limited to individual desires or immediate need:

Because if you make a great plan for the school you may gain experience for
important future decisions. Even if you make a silly plan the teachers will help you
improve it.
They also recognised that a yes/no choice (in the vote) did not fully enable them to give a considered or evidenced view about participation in schools; thus, the next step to understanding barriers was to investigate experiences of schooling further, which might enable consideration of deeper structural levels within systems, and people’s roles in these (Larkins, 2019; Urry, 2003).

The young people decided to interview adults about their school lives and then compare the findings with their own experiences. Through this, they encountered new situations where they had to imagine what they might learn, rather than being given predetermined expectations. Whilst facilitating this process might be considered pedagogy, highlighting assumptions about student-led research (Kim, 2017; Wyness, 2013), there were no teacher established learning goals, the teacher and researcher scaffolding the young people’s learning and decision making by identifying resources and potential ways forward when required (McLaughlin et al., 2004); thus providing assistance with formation of their views but not leading (Lundy and McEvoy, 2012).

The young people worked in self-selected small groups, each group then encouraged to join together with another, to share findings and prepare a presentation to share with the volunteers at the mini-conference as a starting point for discussion about ‘What are schools for?’ In their analysis, they identified similarities and differences about school experience, which suggest they regarded school as a social setting:

*Everyone walked to school, now always everyone comes in their cars.*

*The girls had to wear a hat to school and on the way back.*

*They hit you with a ruler if you were naughty.*

*Nowadays we just get told off. . .a lot.*

*There weren’t many bullies in the schools.*

*They punished you a lot worse back then.*

*They did not have teachers outside to look after you at playtime. They had older children.*

Emphasis on group work and relations as the CIPAR process developed sought to work with this recognition of schools as social institutions. Young people were experiencing both personal and collective decision making and tensions. One particular attitudinal barrier to inclusion demonstrated dominant concerns with individual deficit. Although the teacher was keen that students with special educational needs and/or disability (SEND) were fully involved, initially a teaching assistant took two students aside rather than let them choose their own working partners. When asked about this she expressed concern at their capabilities to participate in group work. The researcher asked the two students to join another group but students in this group were also reticent about their abilities to contribute at first, managing this by asking them to work on a separate task; both students were very quiet. However, their attitudes changed when both unexpectedly decided to speak at the mini-conference. During a tea break the young people involved were caught by the audio recorder chatting and giggling noisily; the joy was palpable.

Adult attitudes similarly presented barriers in terms of young people’s positioning. Parents and volunteers also completed a pre-workshop questionnaire. Responses related to young people’s
participation were mixed, and mostly concerned with capability. For example, one parent, a medical professional, stated:

*Children means they are sub-standard to take decisions as they are not matured (<14) enough. But in certain instances it can be important to get their view as well to modify things in school.*

Assumptions that young people are becomings and adults’ determine when or how young people should participate, provide little insight as to the dominant forces that influence such views. CIPAR, however, by enabling young people and adults to share experiences, analyse this knowledge and then work together to establish meaning, was able to generate deeper insight. The young people demonstrated their capabilities by planning and carrying out interviews, showing awareness of the visitors’ needs, learning to use new software, analysing what they found out and creating their presentations. They planned the mini-conference with the researcher and teacher, welcoming the adults and setting up the room to be comfortable and arranging seven groups to include some adults who wanted to stay together (mum and daughter and a husband and wife). Yet earlier in the first workshop, they sat in rows and were initially reluctant to discuss questions posed with their neighbours. As they progressed through the stages of CIPAR, their behaviour changed in how they related, taking the initiative, cooperating with others, contributing thoughts either verbally or on paper and was also expressed physically through free movement around the classroom and beyond.

During the mini-conference, the conversations drew on what the young people and adults had learned through the interviews, enabling them to talk in detail about the purpose of schools, really thinking about how learning helps them to grow and change as human beings. There was no obvious dominance by adults or individuals within the groups; the young people no longer expected the researcher or teacher to direct their activities, nor looked for reassurance about suitability of their actions. The room was noisy and busy throughout. Adults encouraged the young people ‘have a little think about...’ and ‘that’s really important...’; young people exclaimed at each other’s questions or jotted ideas down on shared paper. An adult asked ‘Is everything you do around school educational?’ to which a boy answered, ‘no not really’.

Here the co-created results, instead of just collating views expressed earlier, demonstrated a depth of thinking and connection with both local and global influences, similar to Torres-Harding et al. (2018), that the earlier data did not evidence, although they did again suggest the importance of their school as a social institution. For example, they suggested school should be about ‘Bringing out the best in everyone or that particular person’ and thought about what was needed to achieve this; they discussed values, relationships, social and life skills, citizenship and knowledge. Groups were asked to share some of their thoughts as the conference proceeded and these included: ‘Understand we are all different’ and ‘Being sociable people’ and ‘Tolerant’. When asked how schooling could help with this they wanted opportunities for ‘getting along with people’, being patient and ‘chances for lots of discussion’.

The young people’s evaluations of being involved in CIPAR revealed how alien they found individualised tasks after working together so successfully. They were given individual worksheets to complete, comments including: ‘Are we meant to do it together?’ and ‘This is hard it’s like doing a test!’ When asked if taking part in CIPAR had made them think about school one exclaimed, ‘Yes how boring it is’. Another said, ‘I don’t know what to put for what I did not like’. Although at the beginning of the project, young people had mixed views about whether more adults should come in to school, one commenting: ‘no way’, all their evaluations indicated that they enjoyed the
intergenerational work, being able to share ‘experiences’ and ‘wisdom’, and how this had helped them think about the issues. When asked why, one said: ‘Because they have great ideas and [we] have a lot of fun with them’. They spoke collectively, expressing values, for example: ‘Because it shows how grateful we should be’. How they described working cooperatively resonates with Johnson and Johnson (2016) and Yorks (2015): ‘It helps you interact better’ and ‘Because we see both sides of the story’.

This understanding, peer to peer and intergenerational, was significant for the adults too. Although earlier in the study there were questions about capability and whether young people should have influence in school, through CIPAR, adults could identify benefits:

- It brings a different perspective to the learning.
- Understanding year 6’s different perspective on life.
- I enjoyed all the mixed opinions regarding education and schooling.

**Discussion: Why is it important to envisage research differently through complexity thinking?**

CIPAR exposed some of the local and global complexities that affect participation in schooling, especially how young people are positioned (Larkins, 2019; Tisdall, 2015; Wall, 2019), how activities are dominated by narrow ideas of success (Fielding, 2004; Wrigley, 2015), deficit views of young people particularly those with SEND (Torres-Harding et al., 2018) and how little influence they had over their educational experience to grow as human beings and to build better futures (Fielding, 2007; Thomas, 2019). Resistance emerged through the negotiated activities and the ways in which young people eventually worked together with adults to co-create ideas of what schooling should actually be, space made possible as the system restructured and adapted with young people’s movements (Urry, 2005). Echoing previous research, CIPAR can be seen to facilitate young people and adults working creatively together towards awareness, shared goals and new knowledge (Flewitt et al., 2018; Poth, 2019). However, by applying complexity thinking, the importance of recognising schools as social institutions was revealed with CIPAR significantly able to address a lack of relational attention to processes that take place in schools, and sometimes missing from PAR.

Young people answered their own questions, but also co-created new spaces of learning using capabilities so often overlooked (Oswell, 2013), identifying and reflecting on their educational goals (Biesta, 2012; Fielding, 2004) for deeper meaning. CIPAR brings in to view how resistance to dominant structural forces might be understood through the ebb and flow of ideas as they move through changing relations. At multiple intersections we find spaces of human interaction where people can choose to recognise and explore ideas in depth, attempting to understand their situations and influencing their course as agents for change (Heggart and Flowers, 2019; Snyder, 2013; Walby, 2007). If we consider these to be the spaces involved in schooling, then it is possible to conceive that in order to create socially just schooling, these spaces must be considered to be integral to the social world (Fielding, 2007; Urry, 2005) and thus capable of novelty and emergent change (Byrne and Callaghan, 2014; Holland, 2006; Prigogine, 1997; Snyder, 2013).

Whilst this research was limited by its experimentation in only one school, it invites us to consider how we might envisage research methods that recognise the dense, fibrous and dynamic nature of the social world, and in doing so, the importance of all people to it, including the
youngest members. Positioning of young people may be shaped by both global and local forces and enacted by adults through system structures, but young people are also important actors and their own perceptions about their capabilities as well as actions, shape spaces. Childhood studies has challenged the dominance of developmentalism in young people-related research, establishing analyses and theories of their agency (Moran-Ellis and Sünker, 2018). But these must be considered in broader interconnected social and global contexts to understand their importance as relational concepts (Thomas, 2019). Structural forces – capitalism, individualism, inequity and their colonisation through globalisation – are at work in the everyday activities of young people’s lives, through the local practices that reinforce their positioning. However, whilst they may exist independently of people’s knowledge of them (Larkins, 2016), and indeed of our ability to fully describe them, these forces do not fully control young people’s influence. The CIPAR process worked by opening up possibilities to test assumptions and bring to the fore young people’s sense of justice.

Expectations about young people may limit their awareness but do not determine their capabilities as CIPAR has clearly shown. Opportunities to challenge assumptions are not just necessary to respect young people’s participation rights, but to realise these capabilities. This then raises the broader question of what are schools for?

The global education reform movement, described as the GERM (Sahlberg, 2011; Wrigley, 2015) is driving standardisation in young people’s lives, in pursuit of capitalist goals. The speed of change enhanced by technology in the last four decades can render those who are marginalised, seemingly unable to influence what is happening or to affect social change. Outmoded forms of democratic engagement such as referenda and first past the post, do little more than reinforce this illusion and maintain the status quo. And yet the young people in this study quickly identified and rejected limited notions of participation, were increasingly positive about cooperative and intergenerational learning and their actions shaped new spaces of interaction. CIPAR purposely seeks to establish cooperative communities who understand each other and can thus work more effectively together for change. It was this time to examine their situations and build genuinely positive relationships that was crucial to participants’ abilities to consider the issues in depth and importantly what was meaningful to them. Although initially suggested by the researcher, the topic of research became their own because it was so relevant to their lives.

Too often, questions about young people’s participation arise through perceived dualism between individual agency and structural forces. Complexity thinking presents greater potential to further our understanding of social (in)justice by rejecting unhelpful dichotomies that recreate simplistic notions of order (Urry, 2003). Schools are capable of change from within (Holland, 2006; Fielding, 2007); young people are agents in these systems (Oswell, 2013) and able to establish order for themselves when their involvement and responsibility are extended through increasingly self-determined tasks, and creating generative space (Welikala and Atkin, 2014; Yorks, 2015). Education as Fielding (2007) suggests is a form of prefigurative practice, essential for understanding how relative freedoms and rights are limited by abuse of power; CIPAR reveals the mutable nature of such power.

The CIPAR process is messy. Shifting from dominant models of narrow schooling (Wrigley, 2015) towards cooperative intergenerational learning, produced unexpected and significant collegial moments. The young people in this study although concerned about potential behavioural problems, appeared to realise the value of cooperation, sharing their findings and interview questions to take the project forward, resonating with Solórzano and Delgado-Bernal (2001). Rather than shifts in power, this could be viewed as a shift in recognition of each other’s powers through growing trust, which appeared to enable solidarity to grow, and decisions to be taken through shared purpose, consistent with Torres-Harding et al. (2018). The cooperation and enjoyment especially in the mini-conference tends to support this developing insight (Johnson and Johnson, 2016) as their participation became a visible act of distributed decision making (Heggart and Flowers, 2019).
The innovative involvement of community adults appeared to act as a catalyst for change, by extending their intergenerational relationships (Bessell, 2017) and by enabling young people to re-imagine themselves as active inquirers (Welikala and Atkin, 2014), envisaging, adapting to and adopting, new ways of being and working, that moved their participation beyond limited notions of voice (Wyness, 2013). Most importantly, these new ways of being enabled them to know what it is like to be co-present with adults, interacting in constructive ways, as a prerequisite to their participation and success of the intergenerational focus groups (Mannion, 2007) and positioning young people as experts in their lives (Freire, 1970).

Whilst recent research considers complexity sensitive strategies for educational research teams (Poth, 2019) and recognises how complexity might reinvigorate citizenship education (Heggart and Flowers, 2019), CIPAR extends these by including young people and adults as active members of these teams undergoing similar challenges and foci on relationships and interactions. Teachers are also active agents in schools and can change practice if they collaborate with others to do so as the teacher in this study demonstrated through her openness to novelty (McLaughlin et al., 2004) and willingness to reflect and adapt, and trusting in young people (Moran-Ellis and Sünker, 2013). This perhaps marks the difference between PAR as simply a means to investigate the views of marginalised groups and CIPAR as a method for understanding influential forces and to facilitate change.

What was important was not the researcher’s questions but those that participants established and agreed to work on together. It is participants who will continue this process of complexity-informed change; researchers play an important role by facilitating responsive processes and sharing their own skills and experience (Cox, 2008, 2012; Martin and Sturmberg, 2009). Participation and CIPAR are not the same; the latter is ultimately an academic process driven by well-being concerns. However, CIPAR can be a way of instigating young people’s participation because it can enable young people to form as well as express their views (Lundy and McEvoy, 2012). CIPAR thus provides a promising starting point to create spaces for novelty in schools.

**Conclusion**

CIPAR as illustrated by this case study demonstrated that a step-change in how young people’s participation in schooling is conceived is possible and has potential to generate emergence and thus system change. Complexity thinking reminds us that systems such as schooling are more than the sum of policies and practice: they are part of a social world consisting of infinite spaces that act as intersubjective meeting points, constantly in flux, responding to and changing expectations, interactions and relationships. Schools are relational environments (Oswell, 2013; Urry, 2005; Walby, 2007) and these relationships extend well beyond those co-present and are important to how young people experience being in them (Bessell, 2017). Growing awareness of young people’s rights, underpinned by the UNCRC, should remind us that it is no longer enough to confine young people to schools with the premise that it is in their best interests to standardise their lives until deemed mature enough to join the adult social world – they are already in and integral to it.

CIPAR embraces the dynamic and interconnected potential of the social world by enabling young people who are most affected by schooling systems to shape spaces for novelty and potential change and re-envisioning their participation. It provides potential for further research with young people in their classrooms, to understand how approaches such as cooperative learning and student-led intergenerational inquiry, might enable broader transformation by embedding young people’s rights in different types of schools, but also in improving the quality of experience essential to well-being. This is timely because denial of complexity, and the influence adults have on the day
to day lives of young people, is an avoidance of responsibility that serves to reinforce dominant tensions (Cilliers, 2005).

The qualitative study was limited by inclusion of only one school and class. Further research is needed now to understand the roles that specific characteristics such as ethos, disadvantage and location of communities play in enacting as well as shaping global forces such as neoliberalism and inequality. However, this example demonstrates the possibility of thinking differently and we can never be sure at what point momentum will produce lasting transformation (Urry, 2003). CIPAR is about presenting opportunities to question assumptions and being responsive to capabilities that are revealed. This requires time and attention to relationships which can be achieved by engaging broader communities in classroom activities. These may be modest claims giving no absolutes but, as Cilliers (2005) suggests, in recognising the limits of knowledge about complex systems, we provide an invitation to continue the process of building understanding. CIPAR is a time-intensive, intergenerational process; yet if researchers are to address social inequalities more rigorously, then we must make these a priority.

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