Young Children ARE Researchers: Children aged 4-8 years engage in important research behaviour when they base decisions on evidence.

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ABSTRACT: Whilst young children are affected by educational policy decisions based on research evidence, their abilities to make decisions based on evidence are often disregarded by policymakers and professional adult researchers. This paper reports on elements of the Young Children As Researchers (YCAR) project, an interpretive empirical study that sought social justice in the field of early childhood by conceptualising ways in which young children aged 4-8 years are researchers and may be considered to be researchers. Adopting a principled approach framed by a ‘jigsaw’ methodology, the YCAR study engaged professional adult researchers (n=34), young children aged 4-8 years (n=138) and their practitioners (n= 15) in three English primary schools. Drawing on the study findings, this paper argues that decision-making based on evidence is an important research behaviour undertaken by young children that deserves recognition by policymakers, practitioners and the academy as a potential vehicle for realising children’s participation rights.

Keywords: Young Children Are Researchers; decision-making based on evidence; young children’s participation rights; early childhood; epistemology; jigsaw methodology.

Introduction

Research evidence can be a powerful tool that often informs educational policymaking (Bridges, Smeyers, and Smith 2008). Yet whilst children may be affected by educational policy decisions based on research evidence, they tend to be excluded from educational policy-making and the ‘rarefied world’ of the academy: a hegemonic ‘score-keeping world’ where professional adult researchers separate themselves from others (Lees 1999:382; Redmond, 2008: 17; Bridges 1998). Embedded in the right of the ‘…child who is capable of forming his or her own views... to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child’ (OHCHR 1989) is the view of children as ‘evolving’ (Lansdown 2005), so that the younger children are, the less they tend to be regarded as capable of forming and expressing their own views. However, as a teacher in English early childhood settings, every day I found young children intuitively forming and expressing their own views in many different ways (Gallas 1994), alongside acquiring information, planning, questioning, analysing, interpreting, solving problems, exploring and reporting new ideas and artefacts that they created quite naturally, often in self-directed experiences. Moreover,
children used these behaviours as bases of evidence for forming their own views that underpinned their own decision-making, leading to what they came to know and understand (Feder 1996; Schmitt 2004). In other words, those young children naturally and voluntarily seemed to base decisions on evidence as a rational underpinning for forming epistemology - philosophies concerning what they counted as truth and knowledge (Strega 2005: 201).

Anecdotally, the children’s behaviours seemed similar to those of professional adult researchers whose work informs policy. However, whilst there is limited recognition of children as ‘experts in their own lives’ (Langsted 1994: 29) and practitioners and children often recognise children’s behaviours as important and meaningful in settings (Löfdahl and Hägglund 2006; Dunphy and Farrell 2011), such behaviours tend to be side-lined by policymakers and professional adult researchers who prefer to impose their agenda on matters affecting children, for example, as statutory centralised curricula or research positioning children as data (Fielding, 2001). Appadurai (2006) notes that research is a ‘right of a special kind’ that it is not yet universally accessible (p.167); equally, among powerful people making decisions for children, an assumption appears to prevail that young children are not ‘social actors from the beginning of life’ - a rights issue that the United Nations has begun to address (OHCHR 2005:2).

These discontinuities became drivers for the Young Children As Researchers (YCAR) study (Murray 2012a), an interpretive empirical study that sought social justice in the field of early childhood by conceptualising ways in which young children aged 4-8 years are researchers and may be considered researchers. In YCAR, professional adult researchers identified four research behaviours as ‘most important’ for professional research: exploration, finding solutions, conceptualisation and basing decisions on evidence. This paper provides a brief overview of the full YCAR Study with focus on one of those research behaviours - basing decisions on evidence; discussion about other YCAR research behaviours can be found elsewhere (Murray 2012a; 2012b; 2013). The present paper draws on the YCAR Study to argue that young children engage in important research behaviour when they base decisions on evidence and that this deserves recognition by policymakers, practitioners and the academy. To develop this argument, two aspects of young children’s decision-making emerging from YCAR are discussed: (1) decision-making based on evidence as a research behaviour undertaken by young children and (2) young children’s decision-making as a vehicle for their participation.
The paper opens by defining the nature and importance of basing decisions on evidence before considering literature surrounding children’s agency and decision-making. Discussion then focuses on YCAR findings, especially those concerning young children aged 4-8 years basing decisions on evidence, before the argument is concluded.

The nature and importance of basing decisions on evidence
The importance of evidence as a basis for decision-making is recognised by researchers across disciplines (Hansson 1994). Researchers’ uses of evidence combined with reasoning as underpinning for judgement emerged strongly during the Enlightenment when purely metaphysical accounts as the basis for truth began to be rejected in favour of an empiricist view that reasoning should be based on ‘matter of fact and existence’ (Hume 1748:123). In contemporary educational research, decision-making is often correlated with policy, research and evidence (Biesta 2007).

Nevertheless, what counts as ‘evidence’ seems variable (Bridges et al. 2008). Our senses supply information to warrant premises and conclusions which underpin claims to knowledge: a posteriori reasoning (Bonjour 1998), whereas a priori – pure – reasoning is not informed by senses (Scruton 2001). Bridges (2003) suggests that either may be warranted within educational contexts, but in recent years, policymakers seeking ‘what works’ have privileged educational research based on a posteriori reasoning displaying ‘hard’ evidence (Biesta 2007; Goldacre, 2013).

Equally, decision-making is defined as ‘acts or options among which one must choose; the possible outcomes or consequences of these acts and the contingencies or conditional probabilities that relate outcomes to acts’ (Tversky and Kahneman, 1981:453). ‘Decision theory’ is the interdisciplinary study of how decisions are made (Kahneman and Tversky 1979). Whilst regarded as a socially situated activity (Eisele 2003) decision-making is also seen as an internal reasoning process (Anand 1993; Johnson-Laird and Shafir 1993).

It may be argued, then, that the process of basing decisions on evidence is the use of sensory information combined with reasoning, to identify a rationale for choice. Decision-makers engage in the ‘art of the utilisation of knowledge’, identified as a key aim for education (Whitehead 1929: 16). Behaviour observed in infants and young children indicates functionings that enable rational decision-making (Anand 1993). Fantz (1965) found that infants show
preference for one pattern over another when presented with two images; Bruner, Olver and Greenfield (1967) posit that in doing so, babies discriminate between patterns, so adopt criteria as evidence for making decisions. Furthermore, Levin and Hart (2003) found that children of four years revealed understanding that decisions they made may be advantageous or disadvantageous.

**Children’s agency and decision-making**

When children make decisions based on rational thought and sensory evidence, it can be argued that they reveal competence ‘in the creation of themselves and their knowledge’ (Dahlberg and Lenz Taguchi 1994:2). When children make decisions based on evidence they use knowledge they have acquired, reveal what they ‘value doing or being’ and demonstrate capabilities (Sen 1999:75; Nussbaum 2000).

Benefits flowing from children’s participation in decision-making about their education include agency (Davies *et al*. 2006), social inclusion (Woodhead and Brooker 2008), shared pedagogical dialogue, care ethics, enhanced learning, self-esteem, autonomy and learner motivation (Rudduck and McIntyre 2006; Cox *et al*. 2010). Children’s engagements in collective decision-making are valuable for them as learners, their teachers, schools and wider communities (Davies *et al*. 2006): equally, skilled, principled educators can support children in making genuinely meaningful decisions (Rudduck and McIntyre 2007).

Lansdown (2010) recognises that children’s views deserve ‘serious consideration’ in community decision-making (p.12); many children want to make decisions (Morrow 2008), yet the diverse nature of their participation and decision-making sometimes confuses adults (Foley 2011). Adult discourse tends to focus on ‘adult-initiated processes’ (Lansdown 2010:26): adults’ taxonomies of children’s participation simultaneously highlight ways children are denied agency (Ackermann *et al*. 2003) and when adults deny children opportunities to make decisions in matters affecting them they subjugate them (Levinas 1980).

Reasons adults give for denying children opportunities to make decisions about their education include perceived immaturity, teachers’ professional protectionism, hierarchical structures and scholarisation (Shevlin and Rose 2008; Alexander 2010; Rudduck and McIntyre 2007; Whitty and Wisby 2007). Whilst school may be a ‘…crucial arena of a child’s life’, it remains the ‘…domain of adult decision-making’ (Jones and Welch 2010: 25) where children are
silenced (Cannella 2002). In England, the ‘…pernicious paradigm of school effectiveness’ militates against children’s decision-making and participation (Fielding 2001: 134; Cox et al. 2010). England seems characterised as a country where children’s perspectives are sidelined, where education is valued in terms of economic return and where children’s rights legislation is poorly implemented (Morrow 2008; Chowdry and Sibieta 2011; UNICEF IRC 2012). This may be the case especially for younger children operating in modes that adults struggle to recognise (Lansdown 2010). Nevertheless, the Norwegian government has legislated for adults working with young children to ‘…respect (children’s) intentions and realms of experience’ (Norwegian Ministry of Education and Research 2006).

The YCAR Study revealed decision-making based on evidence as a research behaviour presenting in children aged 4-8 years in their homes and in English primary school contexts. This paper focuses particularly on the latter.

**The Young Children as Researchers (YCAR) Study**

Research with children requires particular ethical consideration (Fossheim, 2013; EECERA, 2014). In form and function YCAR was underpinned by BERA’s revised ethical guidelines (2004; 2011): given YCAR explored young children researching in their everyday lives, its methodology encouraged young children and their practitioners and parents to collaborate actively in democratic research. Additionally, YCAR was framed by a value orientation committed to social justice, therefore, although ethical challenges presented in securing equalised power relationships, access, consent and data collection (Murray 2011) these were mitigated by the study’s value orientation, shaped by three principles. An emancipatory principle pursued equalised relationships (Habermas (1987) through ‘collectivity, reciprocity and respect’ (Kovach, 2005: 28), a participatory principle committed to ‘shared ownership...and community action’ (Kemmis and McTaggart (2005: 560), whilst an inductive principle elicited analysis from empirical data co-constructed with participants (Charmaz 2006). These three principles combined with four methodologies to create a syncretic ‘jigsaw’ methodology (Figure 1):
Constructivist grounded theory (CGT) underpinned YCAR throughout as it accommodated the three principles, allowing collaborative constructions of data that valued ‘participants’ implicit meanings and experiential views’ and the assumption that all involved were ‘part of the world’ we studied (Charmaz 2006:10). The full jigsaw methodology emerged as YCAR unfolded in response to participants’ perspectives. Nevertheless, as CGT is a set of ‘principles and practices’, ethnography is commonly adopted alongside to provide an organisational framework; YCAR’s social justice orientation indicated critical ethnography (CE) (Carspecken 1996). Reflexivity with participants is common to both CGT and CE and to the mosaic approach (MA) (Clark and Moss 2011), which supported collaborative constructions and interpretations of data. ‘Descriptive case study’ (Yin 2012) facilitated co-ordination of YCAR across multiple sites, whilst retaining individual characteristics of each.

YCAR comprised three stages of data co-construction (Table 1).

**Table 1: Three stages of data co-construction**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>Professional Early Years and Educational Researchers (PEYERs) (n=34);</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Children (n=138) and practitioners (n=15) in early childhood settings;</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Children and families at home (n=5).</td>
</tr>
</tbody>
</table>

Initially in Stage 1 the views of fourteen professional early years and educational researchers (PEYERs) regarding a definition of research were captured in interviews and a focus group. The
PEYERS were selected because their prior behaviours as researchers privileged them as ‘academy’ members (Bridges 1998:603). It was reasoned that if young children’s activity could be identified as congruent with a definition of research made by academy members, the academy might reconsider young children as researchers. However, rather than a single definition, a taxonomy of 39 research behaviours emerged from this process (Table 2). PEYERs also indicated that Stage 2 should include young children and their practitioners and Stage 3 should include young children and their parents. This paper focuses predominantly on Stage 2.

For both Stages 2 and 3, multiple case studies were co-constructed; for Stage 2, they were co-constructed with children and practitioners in early childhood settings within three state maintained primary schools serving predominantly A/B occupation groupings in an English midlands town (Market Research Society, 2006) (Table 3).

Table 2: Research Behaviours Framework (RBF)

<table>
<thead>
<tr>
<th>1. Seek a solution</th>
<th>21. Investigate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Want to explore</td>
<td>22. Enquire</td>
</tr>
<tr>
<td>3. Explore with an aim</td>
<td>23. Test and check</td>
</tr>
<tr>
<td>4. Explore without an aim</td>
<td>24. Are systematic</td>
</tr>
<tr>
<td>5. Explore with an aim which changes during the process</td>
<td>25. Are objective</td>
</tr>
<tr>
<td>6. Explore with a fine focus</td>
<td>26. Base decisions on evidence</td>
</tr>
<tr>
<td>7. Explore broadly</td>
<td>27. Use processes that are fit for purpose</td>
</tr>
<tr>
<td>8. Find out why things happen</td>
<td>28. Can replicate process</td>
</tr>
<tr>
<td>9. Find out how things happen</td>
<td>29. Can replicate output</td>
</tr>
<tr>
<td>10. Examine problems</td>
<td>30. Use and apply findings in new contexts</td>
</tr>
<tr>
<td>11. Increase understanding of the world through exploration</td>
<td>31. Believe what they are doing is good</td>
</tr>
<tr>
<td>12. Increase knowledge</td>
<td>32. Are focused on their chosen activity</td>
</tr>
<tr>
<td>13. Find a solution</td>
<td>33. Reflect on process</td>
</tr>
<tr>
<td>14. Go beyond instinct</td>
<td>34. Reflect on results</td>
</tr>
<tr>
<td>15. Gather data</td>
<td>35. Do no harm</td>
</tr>
<tr>
<td>16. Build on others’ work</td>
<td>36. Participate with others</td>
</tr>
<tr>
<td>17. Take account of context</td>
<td>37. Can communicate what they are attempting to do</td>
</tr>
<tr>
<td>18. Plan</td>
<td>38. Can communicate what they have achieved</td>
</tr>
<tr>
<td>20. Question</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Stage 2 participants
Each case study was undertaken over six half-days and three full days and 138 children and their 15 practitioners participated. Multi-modal methods focused on children’s naturalistic behaviour enabled participants own data offerings to be included (Pellegrini et al. 2004; Clark and Moss 2011) (Table 4). To represent participants’ subjective realities in the rich detail required to secure trustworthy output, Stage 2 analysis and interpretation were undertaken by participating children, practitioners and professional researchers, including myself, in an evolving, co-constructed, recursive process guided principally by CGT procedures, so that analysis and interpretation were interwoven with data collection (Charmaz 2006); alongside, analytical procedures inherent in critical ethnography, mosaic approach and case study complemented CGT within the jigsaw methodology, further securing trustworthiness of findings (Table 5).

As the project unfolded, the volume of data grew quickly, making it necessary to limit the range of research behaviours for full analysis. Therefore, in a nominal grouping exercise (Delbecq and VandeVen, 1971), Stage 1 participants, alongside twenty additional PEYERs (n=34), were invited to rank RBF research behaviours according to perceived importance for professional research. Four research behaviours emerged: exploration, finding solutions, conceptualisation and basing decisions on evidence so YCAR focused on these behaviours.
Cross-cutting the four YCAR research behaviours that were identified in participating children’s naturalistic activity, theoretical coding elicited 80 categories which were factors that effected and affected the children’s research behaviours. These factors seemed to act as ‘building blocks’ that children naturally adopted for constructing evidence as their basis of justification for coming to know and understand (Feder 1996; Schmitt 2004); they were, in other words, epistemological factors. The 80 epistemological factors were grouped into a typology of nine sets: applications of prior experience, innovation, social domains, autonomy, material contexts, cognitive domains, dispositions and outliers; categories in the final factor - methodological issues – arose from children’s interactions with YCAR (Table 6). Of the 80 building blocks, fourteen were concerned with ‘basing decisions on evidence’ (Table 7).

The final analysis and interpretation task in the YCAR Study was writing the draft (Charmaz 2006). Across the four ‘most important’ research behaviours, each epistemological factor was deconstructed, evaluated and synthesised with extant literature. A series of vignettes emerged, depicting participating children’s naturalistic activities alongside what and how they came to know and understand through each epistemological factor. This procedure exposed sophisticated...
processes adopted by the children during their everyday activities, to reveal congruence with the research behaviours academy members deemed ‘most important’.

_Table 7: Epistemological ‘building blocks’ presenting in young children basing decisions on evidence_

<table>
<thead>
<tr>
<th>Applies prior experience</th>
<th>Values peer perspectives</th>
<th>Meta-cognition</th>
<th>Methodological issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applies mental model</td>
<td></td>
<td>Trial and error</td>
<td>Research</td>
</tr>
<tr>
<td>Extrapolates</td>
<td>Acts on adult opinion</td>
<td>Thinks strategically</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enacts personal preference</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Senses provide evidence for action</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applies Humean ‘reason’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applications of prior experience</td>
<td>Social domains</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Autonomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Material contexts</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cognitive domains</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Methodological issues</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Categories within Methodological issues arose from children’s interactions with the YCAR study.*

**Data presentation and discussion: children aged 4-8 years based their decisions on evidence**

From 162 observations captured in the children’s settings and homes, 181 incidences of children basing decisions on evidence were drawn from 129 observations in settings; each incidence was developed into a vignette. Here, three vignettes are outlined, exemplifying this process and revealing three young children basing decisions on evidence in their settings.

**Annie and the Spider: Social Domains – values peers’ perspectives**

Sometimes, when children appeared to value their peers’ perspectives, this correlated with them basing decisions on evidence (Eisele 2003). For example, during a formal art lesson in Ash Setting, children aged 7-8 years were tasked by their practitioner to make an undersea picture. Later, Annie (girl, 8) saw eight of her peers move one-by-one to look at something near the class bookcase. Annie left her prescribed work and also moved to the bookcase; her peers had found a spider behind it.

Table 6: ‘Building Blocks’: Epistemological Factors in Young Children’s Everyday Behaviours

<table>
<thead>
<tr>
<th>KEY:</th>
<th>Explore: E</th>
<th>Find a solution: FaS</th>
<th>Conceptualise: C</th>
<th>Base Decisions on Evidence: BDoE</th>
<th>PROVOCATIONS</th>
<th>BARRIERS in italics</th>
<th>Resulting from YCAR research</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDoE10. Extrapolates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BDoE13. Applies Humean ‘reason’</td>
<td></td>
</tr>
<tr>
<td>BDoE6. Applies mental model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BDoE8. Thinks strategically</td>
<td></td>
</tr>
<tr>
<td>BDoE1. Applies prior experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BDoE7. Trial and error</td>
<td>FaS 28. Excited by finding solution</td>
</tr>
<tr>
<td>C10. Linking prior knowledge to new application</td>
<td>FaS 30. Employs others to help with finding a solution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FaS 26. Shares solution</td>
<td></td>
</tr>
<tr>
<td>C7. Synthesising concepts</td>
<td>FaS 26. Shares solution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FaS 25. Resolves another person’s problem</td>
<td></td>
</tr>
<tr>
<td>Applications of prior experience</td>
<td>Innovation</td>
<td>Social domains</td>
<td>Autonomy</td>
<td>Material contexts</td>
<td>Cognitive domains</td>
<td>Dispositions</td>
<td>Methodological issues</td>
</tr>
</tbody>
</table>
Here, Annie developed her own philosophy of ‘what counts as knowledge and truth’ (Strega 2005:201); having observed her peers (Tversky and Kahneman 1981), Annie used information from her observation as a basis to decide to give primacy to her peers’ perspectives rather than her practitioner’s plans (Löfdahl and Hägglund 2006).

**Oscar and his friends: Autonomy – enacts personal preferences**

When they experienced autonomy (Deci and Ryan 1987), YCAR children often enacted personal preferences that revealed them basing decisions on evidence. During free-flow play in Cherry Setting’s undercover outdoor area, Oscar (boy, 5) held a toy elephant at one end of a plastic drainpipe and asked children at the other end to see what was there. Subsequently, Oscar stood aside and watched other children playing with tube, returning later to play himself with a toy zebra. Oscar’s preference for playing with his peers seemed guided by a cognitive need alongside an socio-emotional need to engage with others (Johnson-Laird and Shafir 1993). Equally, his play was ‘goal-directed behaviour in the presence of options’ (Hansson 2005:6; Deci and Ryan 1987): his decision to resume playing was predicated on his observation of his peers and his consideration of that observation. This behaviour is congruent with decision theory (Kahneman *et al.* 1982; Eisele 2003). Oscar was working on developing his own philosophy of ‘what counts as knowledge and truth’ (Strega 2005:201) when he enacted personal preferences to make decisions.

**Gemma tidies up: Cognitive Domains – trial and error**

Cognitive functionings that led children to base their decisions on evidence included trial and error-elimination: the ‘tentative proposal of various possibilities and elimination of those which are not adequate’ (Popper 1972 / 1979: 242). One day in Beech Setting, Gemma (girl, 5) had offered to tidy the book box. She attempted to slide a book in sideways; it would not slide in so Gemma tried another way round – the book still would not go in so she tried another space. Gemma continued to try to fit books into the book box; if a book did not fit she used that experience as a basis of evidence for trying to fit the book into the box in a different way. She proposed ‘new forms’ of arranging the books and ‘new hypotheses’ about how she might fit books into the book box, moving onto the next ‘form’ and ‘hypothesis’ when she found one that
did not work, until she found one that did: error-elimination’ (Popper 1972 / 1979: 242). It can be argued that Gemma’s behaviour was congruent with the schema -

\[ P_1 > TS > EE > P_2 \]

- where ‘P represents a problem, TS a trial solution applied to the problem, and EE stands for error-elimination’ (Swann 2009: 260). Gemma decided new ways to tidy the books based on outcomes that emerged from trialling and eliminating unsuccessful methods (Tversky and Kahneman 1981). In this example of trial and error, Gemma developed her own philosophy of ‘what counts as knowledge and truth’ (Strega 2005:201) to construct new understanding.

**Conclusion**

This paper has drawn on YCAR to argue that young children engage in important research behaviour when they base decisions on evidence: this deserves recognition by policymakers, practitioners and the academy. YCAR established that professional researchers regard decision-making based on evidence as important research behaviour. Young children participating in YCAR showed how they based decisions on evidence quite naturally by combining sensory information with reasoning to identify a rationale for choice. This behaviour indicates congruence with formal decision theory (Tversky and Kahneman 1981). In these ways YCAR provides evidence that young children base decisions on evidence and this is research behaviour.

Furthermore, when YCAR children engaged in making decisions based on evidence, contemporaneously they often displayed their agency (Davies *et al.*. 2006). This outcome adds to literature documenting decision-making as a factor in children’s participation rights (Rudduck and McIntyre 2006; Morrow, 2008; Cox *et al.*. 2010). Not only did YCAR children act as researchers, basing decisions on evidence to construct and apply understanding, but they also acted as co-researchers for the YCAR Study itself, gathering, analysing and interpreting evidence. Thus it can be argued that children aged 4-8 years participating in the YCAR Study behaved as researchers, and demonstrated sufficient ‘age and maturity’ to show themselves ‘capable of forming their views’ in ‘matters affecting them’ (OHCHR 1989). Given that premise, it may be argued further that YCAR provides a rationale for young children’s capability as
researchers to be accorded ‘due weight’, particularly in regard to matters affecting young children.

The YCAR findings carry messages for the academy, for parents and for policymakers and practitioners working in the field of early childhood. Firstly, the YCAR Research Behaviours Framework may have useful applications in many research contexts, whether or not children are involved. Moreover, there will be value in developing further the research behaviours that it was not possible to develop fully within the scope of YCAR. Secondly, although YCAR was conceived before EECERA’s recently published *Ethical Code* (2014), its principled approach demonstrates an authentic way to research democratically with young children in ways that align with the Code (EECERA, 2014). Thirdly, YCAR highlights young children’s natural behaviour and shows how links to extant literature can reveal highly sophisticated processes underpinning those behaviours. Young children can and do behave in ways that are congruent with adult researchers’ behaviours; for future research, YCAR methodological principles and approaches may prove helpful to academy members in understanding other aspects of young children’s worlds. Equally, YCAR reveals key epistemological factors that affect and effect young children’s high quality constructions of knowledge. For practitioners supporting and assessing young children’s constructions of knowledge, referencing the YCAR epistemological factors may be useful. Moreover, for early childhood education policymakers, YCAR epistemological factors may prove equally valuable in policy development concerning statutory curriculum and assessment. Finally, by revealing the value of young children’s agency in their own constructions of knowledge, the YCAR Study indicates to the academy, parents, practitioners and policymakers the importance of respecting and affording that agency. Such respect and affordance is a matter of social justice.

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References


