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Title: Valuing, visioning and voice: exploring young children's potential as researchers

Originally presented to: 20th European Early Childhood Educational Research Association (EECERA) Conference: Knowledge and Voice in Early Childhood: Who Knows, Who Speaks, Who Listens?

Event location: Birmingham, UK

Event dates: 06-08 September 2010

Example citation: Murray, J. (2010) Valuing, visioning and voice: exploring young children's potential as researchers. Symposium presented to: *20th European Early Childhood Educational Research Association (EECERA) Conference: Knowledge and Voice in Early Childhood: Who Knows, Who Speaks, Who Listens?, Birmingham, 06-08 September 2010.*

Valuing, Visioning and Voice: Exploring young children's potential as researchers



EECERA
20th Annual Conference
Birmingham
6th- 8th September 2010



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This presentation addresses:

Snapshot of findings from the Young Children as Researchers (YCaR) enquiry:

Children aged 4-8 engaging in one research behaviour: 'Find a solution'

Part of: 'An enquiry conceptualising naturalistic ways in which young children aged 4-8 years are researchers, may develop as researchers and may be considered researchers'

1. Questions
2. Background
3. Approach
4. Findings

1. Some questions...

- Can children aged 0-8 years be researchers?
- What is research?
- What enquiries are important to young children and how can they engage in them?
- What support structures might encourage young children to participate in research in matters affecting them?
- What barriers might prevent this?

Can children aged 0-8 years be researchers?

Gathering evidence from different disciplines for capabilities in children aged 0-8 years...

Psychology

- **Potentially significant cognitive capabilities of babies and toddlers (Goswami and Bryant, 2007)**
- **Children 18 months+ are cognitively equipped for aspects of critical thinking (Piaget, 1970; Meltzoff, 1995; 2007; Wellman and Gelman, 1992; Gopnik and Meltzoff, 1998)**
- **At 18 months children are capable of understanding inference, intentionality, another's goals (Meltzoff, 1977; 1995; 2007): Theory of mind.**

Sociology

- **Children as young as 12 months can be capable social actors** (Markström and Halldén, 2009)
- **Children's rights agenda suggests possibilities for children being researchers** (United Nations (UN), 1989; Laming, 2003; Children's Rights Alliance for England (CRAE), 2009)
- **Emergence of participatory approaches** (Alderson, 1995; Clark, Kjørholt and Moss, 2005; O'Kane, 2008)
- **Emancipatory 'new paradigm' discourses** (Corsaro, 2005; Cannella, 2002; Dahlberg, Moss and Pence, 2007)

2. Background to the study

- ECEC teacher for 20 years
- Career change to ECEC lecturer
- Hegemony in educational research excludes children (Hargreaves, 1996; Redmond, 2008)
- In England, children 0-8 years often disregarded as social actors in matters affecting them (UN, 1989; UNCRoC, 2008; DfEE and QCA, 1999)
- Paucity of research placing children 0-8 as researchers – increasing exceptions (*inter alia*, Clark and Moss, 2001; Darbyshire, Schiller and MacDougall, 2005; Frost, 2007)

3. Approach

- Synthesis of epistemology, (Audi, 1998), 'new' sociology (Jenks, 2005) and 'folk' psychology (Davies and Stone, 1995)
- Located in field of Early Childhood Education and Care (ECEC), nested in educational research
- A critical ethnographic study... (Carspecken, 1996)
- ...within a constructivist grounded approach (Glaser and Strauss, 1967; Charmaz, 2006)

What is research?

- Various definitions (*i.a.* OECD, 2002; HEFCE, 2005; Stenhouse, 1975; AHRC, 2009)
- No universal definition
- For – and within - this study, a framework of research behaviours (RBF) was established empirically
- 14 professional educational researchers (PERs)
- Interview conversations and focus group

‘Find a solution’

- Why was ‘find a solution’ identified as a research behaviour?
- Marked trend towards ‘use-inspired’ and applied educational research (Gibbons *et al.*; 1994; Stokes, 1997; Furlong and Oancea, 2006).
- Educational research should solve problems in educational practice (Hargreaves, 1996; Hillage *et al.*, 1998)
- In England, as America, policy makers want ‘What works’ (Gibbons *et al.*, 1994; Oancea and Pring, 2008).
- Policymakers allocate funding in England,
- Educational [including ECEC] research facilitated when researchers can persuade policymakers of potential impact of findings on practice (Lawn and Furlong, 2009).

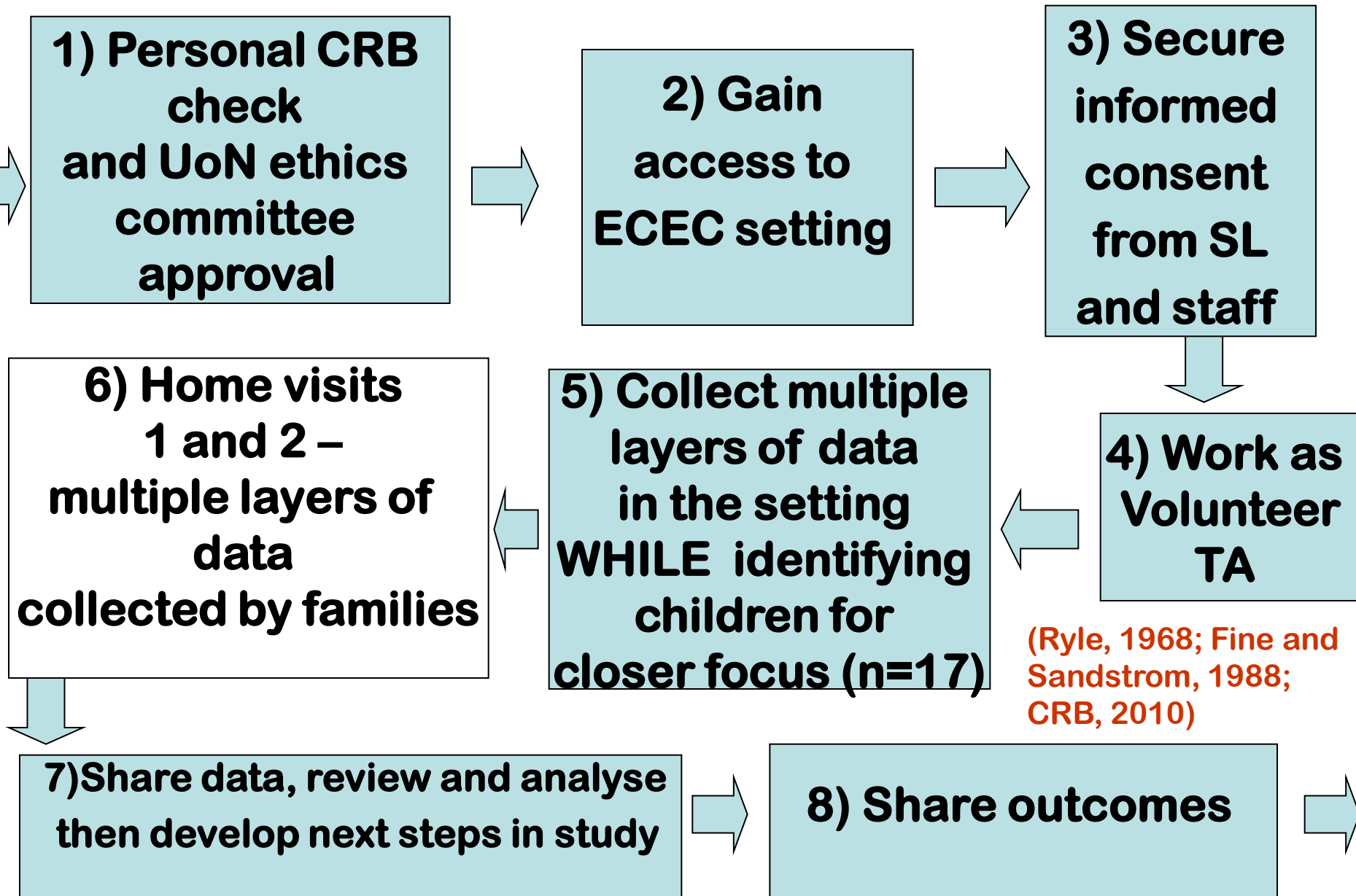
Problems, problems...

- Simultaneous drive for both pragmatism and ‘universal truth’ presents challenges for educational / ECEC research
- Practical approaches appropriate for many educational / ECEC contexts (Dewey, 1938).
- ‘Universal truths’ facilitated when criteria remain constant
- Educational processes often dynamic and complex
- ‘What works’ may only work in one specific context.
- Individuals’ perceptions of ‘what works’ may differ
- Despite vogue for practical ‘Mode 2’ knowledge (Gibbons *et al.*, 1994), the ‘academy’ maintains traditional structures research (e.g. modes of dissemination, narrow view of ‘quality’)
- Traditional structures research exclude young children
- Yet young children research...don’t they?

Theoretical sampling (Charmaz, 2006): ECEC settings...case studies

Setting A	Class of 7-8 year-old boys and girls (n=30) and their practitioners (n=3)
Setting B	4-5-year-old boys and girls (n=60) in an Early Years Foundation Stage unit and their practitioners (n=7)
Setting C	4-5-year-old boys and girls (n=60) in an Early Years Foundation Stage unit and their practitioners (n=5)

Accessing Data in Settings (and Homes)



Data collection - multi-modal approach (Clark and Moss, 2001)

Field Notes	Video filming of children's naturalistic behaviour indoors	Photographs taken by researcher
Documents [e.g. planning, school prospectus)	Observations of children's naturalistic behaviour outdoors	Formal interview conversations
Observations of children's naturalistic behaviour indoors	Photographs taken by children	Informal interview conversations

Data analysis for each research behaviour (Charmaz, 2006)

1	Transcribe data.
2	1 st analysis: Initially code each child observation transcription. Link the PERs research behaviours to each unit of meaning
3	2 nd analysis - Axial coding
4	Catalogue occurrences of the category and the axial codes to create an overview of all setting observations
5	'Advanced memo' - critical discussion focused on the category.
6	3 rd analysis draws together the category. Further axial coding with examples for each child
7	Critical discussion. Draw together the strands of the analysis for the category.

Some more questions...

- Did children find solutions in their settings?
- Where did children find solutions in their settings?
- How did children share their solutions?
- What do the data tell us about children finding solutions?

4. Findings

Did children find solutions?

- 16 of 17 children who were closely observed found one or more solutions.

What solutions?

- Finding own solutions
- Resolving another people's problems
- Responding to teacher's closed questions
- Responding to teacher's semi-open questions
- Reproducing prior knowledge

Where did children find solutions in their settings?

- **Social contexts:** interactions with peers and practitioners, socio-dramatic play and small world play (Broadhead, 2004; Vygotsky, 1962; 1978),
- **Physical properties of materials** - craft, construction, sand, water, wheeled toys, balls, large cylinders and climbing apparatus (Piaget, 1972; Athey, 2007)
- **The natural world** - small world play, outdoor play, gardening, safari park visit, eating an apple (Helm and Katz, 2001; Bancroft, Fawcett and Hay, 2008; Flear, 2009)
- **Language and story** - socio-dramatic play, small world play, information technology (IT) activities, story times, phonics sessions Wright, Bacigalupa, Black and Burton, 2007)
- **IT** - children's use of cameras, computers (Selwyn *et al.*, 2009)



How did children share their solutions?

- Telling and showing peers and practitioners
- Creating artefacts: a pet home, a necklace and a wristwatch)
- Behaving variably: exploring what a Tuffcam could do by writing, then filming, number sentences on a whiteboard, then playing back the film
- Acting in role: mum and dad, tiger, dog
- Adapting facial expressions: puzzlement followed by understanding, smiling
- Documenting in different ways: writing, drawing, chalking, collecting, socio-dramatic play, taking photographs, videoing, word processing
- Sitting quietly with their hands up until asked by practitioner to share their solutions

What do the data tell us about children finding solutions?

- Confirming that children communicate their discoveries in different ways (Malaguzzi, 1998).
- Recognition of such communications is dependent on the skill and drive of practitioners and others in interpreting children's communications
- Behaviours identified as 'Find a solution' were diverse, from one extreme:
 - 1) Closed answers to closed questions (Siraj-Blatchford and Manni, 2008; Bloom et al., 1956) focused on outcome, not process (Csikszentmihalyi, 1990; Laevers, 2000). More evident in 7-8 year olds

To another extreme:

- 2) Children aged 4 and 5 years engaged in reasoning, predicting, weighing up evidence, hypothesising, questioning, selecting materials, designing, evaluating and sharing constructions (Costello, 2000). Often solve problems they set themselves. More evident in 'free-flow' situations

What supported children to find solutions?

- Time, space and opportunity to explore, test and apply prior knowledge and skills in activities they could choose until satiated (Csikszentmihalyi, 1990; Laevers, 2000)
- Wide range of freely available resources and spaces
- Autonomy: directing own explorations and often creating own problems to solve (Lowrie, 2002).
- Freedom to engage in a wide range of play types (Hughes, 2002)
- Linking with peers and working alone (Broadhead, 2004)
- Adults: available when children need them, providing stimulus sensitively, providing 'enabling environment', affirming children's attempts to find solutions, interpreting the children's communications, questioning, listening and responding to children (Alexander, 2008; Sylva *et al.*, 2010)
- Focus on 'here and now' (Graue and Walsh, 1995)

What hindered children from finding solutions?

Children lost interest, confidence and motivation to offer solutions when they were denied opportunities to

- share solutions they may have found
- resolve problems arising from their own interests.

The more the provision was controlled and directed by the practitioner, the more limited the solutions children found. In such situations children:

- sometimes seemed fearful of getting a set task 'wrong'
- tended to secure solutions that believed would conform to the practitioner's expectation.
- relied on teachers to set problems
- found more simplistic solutions that emerged from lower order cognitive processes (Bloom et al., 1956), for example, simply repeating knowledge they had previously been told.

Conclusions

- Children aged 4-8 years can engage in finding solutions; in this respect, they can behave as researchers
- Children are most likely to find solutions in contexts where they experience autonomy through processes they enjoy and become immersed in (Csikszentmihalyi, 1990; Laevers, 2000).
- Often, in such contexts children set themselves problems which they subsequently solve (Lowrie, 2002).
- Sometimes, external stimulus is helpful to children finding solutions as they recall prior knowledge or experience and apply it to resolve new problems.
- Teacher-directed contexts tend to limit children's optimal experiences and their ability to find solutions
- Externally driven curriculum and testing requirements discourage children from engaging in higher level cognitive processes, even when those children have engaged in them up to four years before in their settings.

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Recommendations

Young children aged 4-8 years are likely to behave and be valued and envisioned as researchers in respect of finding solutions if:

Practitioners...

- Provide contexts where young children encounter and solve problems which are intrinsically authentic and meaningful to them
- Envision children aged 4-8 years as capable social actors.
- Find ways to interpret the many ways in which young children communicate their discoveries

Policymakers...

- Free practitioners from external curriculum and testing demands, so they can acknowledge and react to the children's voices in matters affecting them.
- Change policy to endorse a curriculum focused on children's personal constructions of knowledge, driven at micro-level by the children's needs and interests

The academy...

- Embraces pragmatism more readily
- Adopts a broader – but not necessarily poorer - view of 'quality'
- Accepts wider variations in modes of dissemination,