# A Review of Research in Educational Settings Involving Children's Responses

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**Abstract** The aim of this review was to locate research in educational settings incorporating responses from children with or without disabilities or special educational needs, and to describe how the research was conducted. The review was guided by a literature review outline and inspired by a thematic analysis. It encompasses 24 empirical articles published between 1983 and 2012 inclusive. The researchers who involved children's responses in their research obtained the data by adopting traditional data collection methods such as interviews, observations and questionnaires, and by adopting innovative data collection methods such as visualisations, writing, child-directed tours and informal discussions. The researchers offered special support to children with disabilities or special educational needs which created opportunities for those children to opinion-share. The special support was relational and material such as assistance from an adult or peer, the use of picture symbols and child preferences, and the exclusion of difficult questions. Implications for theory and practice are offered.

**Keywords** Children's responses · Education · Special educational needs · Methods · Special support · Well-being

## 1 Introduction

The inclusion of children's responses in research and evaluations of educational settings is considered important. Children are capable of describing experiences and sharing perspectives that adults may not have articulated or been aware of, and in so doing may bring new material and greater depth to research. Several researchers consider children to be competent communicators, 'experts' on their own lives whose views should be taken into consideration (Christensen and James 2008; Clark and Moss 2011; Mason and Danby 2011; Freeman and Mathison 2009; Sheridan 2001). Sheridan (2001) expressed this as follows: 'Evaluation of the quality of early childhood education must include the voices of children. Otherwise an essential part of how children

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experience quality within various preschool settings, as well as an overall understanding of quality in early childhood education, will be missing' (p. 72). Yet, conclusions in research on educational settings appear to be based predominantly on reports about children and their educational settings, rather than children's individual experiences of these environments. Research that incorporates responses from young children (1 to 5 year olds) or young children with disabilities or special educational needs seems to be especially rare (Clark, McQuail and Moss 2003; Tangen 2008). According to Tangen (2008), 'there is a need for further studies to broaden the range of young voices that are being heard; this range should especially include more of the experiences of the children with special needs' (p. 165). This deficit may be attributed in part to the challenges associated with involving children's responses in research, especially those of young children and children with disabilities or special educational needs. Including children's perspectives in research can present practical and ethical dilemmas (Dockets, Einarsdottir and Perry 2009; Dockett et al. 2012; Dockett and Perry 2011; Harcourt, Perry and Waller 2011; Roberts 2008; Yardley 2011). It is considered challenging to find suitable techniques (particularly in cases where children are unable to speak), manage consent processes prior to and during research, involve every child in the setting, and to ensure that the children's perspectives are accurately understood.

Although involving children's responses in educational research is regarded as methodologically and ethically challenging, every child has the right to be 'heard' in matters affecting his or her life, including well-being and experiences in educational settings (United Nations 1989 article 12). Every child has the right to be heard via the media of his or her choice (United Nations 1989 article 13) and children with disabilities should receive the necessary individual support to realise their right to be heard (United Nations 2008 article 7). Researchers should be methodologically flexible to ensure that the methods that they adopt are rooted in the abilities and choices of each child, and that the age and maturity of each child are taken into account.

## 1.1 Rationale and Aim

The rationale behind this review is to bring together research that has included children's responses on educational settings in order to assist future researchers.

The aim of this review is to locate and describe research on children's experiences of and well-being in educational settings that has involved children's responses, especially those of young children with or without disabilities or special educational needs. The following two questions are posed: (1) Which data collection methods were adopted to involve children with and without disabilities or special educational needs in research on educational settings? (2) What kind of special support was offered to the participating children with disabilities or special educational needs?

## 1.2 Definitions

For the purposes of this review, involving children's responses and involving children in research refers to the collection of students' descriptions of their experiences of and well-being in their educational settings, and researchers' inclusion of this data in the research. The expression children with disabilities or special educational needs includes children with various disabilities (e.g., autism, Down syndrome or Language disorder)

or difficulties (e.g., learning or behaviour problems). The European Commission (2012) estimated that in Europe 15 million children have special educational needs. Organisation for Economic Co-operation and Development (2007) reported a country to country variation, and estimated that the proportion of students receiving additional resources for disabilities ranged from below one to above five percent in compulsory education, with the amount of children receiving additional resources for difficulties ranging from zero to over 20 percent. According to the OECD, there is also a country to country variation in regard to the educational location. These children are being educated in regular classes, special classes and special schools, but the children with difficulties are educated in regular classes more often than the children with disabilities. The Programme for International Student Assessment (PISA) also reports percentages of children having 'a functional disability, intellectual disability, limited test language proficiency, and other,' by country (OECD 2007 p. 179). The percentages range from zero to seven percent of the total PISA participants in each country. So, why do the percentages and locations differ from country to country? The OECD (2007) suggests that several factors are involved, such as: differential prevalence of disabilities and difficulties; differences in the provisions of additional resources; policy differences; and that some countries' regular systems 'deal better with individual differences and minimise the need for differentiation' (p. 217–218). These statistics show that children with disabilities or special educational needs are a minority group. These statistics also show that these children are not only being educated in special classes and special schools, but also in regular classes. Researchers are therefore likely to encounter these children in their research in educational settings and, if so, they will need to adapt their methods and offer special support to ensure that every child is given equal good opportunity to participate and opinion-share their well-being and experiences. Special support represents the provisions given to children with disabilities or special educational needs in an effort to enhance their participation and opinion-sharing in research. In this review, the data collection methods are related to the ways in which the research has been carried out. Educational settings incorporate, for example, preschools, nurseries, playschools and schools. The expression well-being in educational settings refers to children's self-reported feelings (e.g., level of satisfaction, health, happiness, fear, worries, self-worth and belonging); and experiences of educational settings refer to children's own considerations about components in their educational settings (e.g., material, activities, routines, play and interactions). Although in this review child well-being predominately refers to children's feelings (e.g., their satisfaction, happiness and sense of belonging in education, which can be related to experiences of educational settings), it needs to be stressed that child well-being is so much more than this. Well-being is a multidimensional concept that also concerns aspects outside the children's educational life. For example, the United Nations Children's Fund (UNICEF 2013) and World Health Organization (WHO 2013) associate well-being with domains such as material well-being, health, safety, behaviours, risks, housing, environment, life satisfaction and education. Moreover, Pollard and Lee (2003) wrote in their systematic review of child well-being that the concept is multifaceted and related to five distinct domains, the: 'physical, psychological, cognitive, social, and economic' domains (p. 59). Children also consider their well-being to be multidimensional and associate the concept with, for example, autonomy, agency, keeping safe, feeling secure, being valued, material resources, their physical environment and their homes (Fattore,

Mason and Watson 2007). However, Fattore and others found that children typically associate their well-being with positive feelings such as happiness, peacefulness and excitement. It is, as is being underlined in this review, essential to incorporate the children's own perspectives and experiences of their life when their well-being is to be understood and defined (Ben-Arieh 2006).

## 2 Previous Reviews

Reviews have been carried out previously on the topic of involving children's responses in research in educational settings (Clark et al. 2003; Due, Riggs and Augoustinos 2014; Fargas-Malet, McSherry, Larkin and Robinson 2010). They demonstrate the use of various types of methods.

A review conducted by Clark and others (2003), aimed at exploring the field of listening to and consulting with young children under five years of age, was focused on children's views and experiences of childcare and education. In their review it was reported that methods such as observations, questionnaires, consulting techniques (e.g., interviews, focus groups) and visual multi-sensory practices (e.g., photographs, role play, the use of puppets) have been used to include responses from young children in the research. It was further concluded that strategies such as observations were often combined with multi-sensory methods (e.g., the use of drawings, role play). In the review, there is evidence suggesting that young children's participation in research increases their self-esteem, social competence and insights into decision-making processes. Very few examples of research involving responses from young children with special needs were located. Clark and others (2003) stated that: 'There is a particular need to explore methodologies to include the experiences of young children with special needs' (p. 6).

The review by Fargas-Malet and others (2010) examined methodological issues and innovative techniques in research with children (no ages were disclosed, but young children are mentioned). In the review it was reported that the use of photography, drawings, participatory techniques, stimulus material or prompts, diaries or other life narrative techniques, observations and questionnaires could be useful in research involving responses from children. In their review, they argue for an increased focus on critical reflections on the contributions of the methods used. Similar arguments were found in Hill's review (1997) regarding the involvement of children in social research (children in foster care): 'It is important that research-based publications give detail of the methods used and provide assessments and feedback about how satisfactory were particular techniques' (p. 180).

The review by Due and others (2014) outlines the methods used when 'researching the educational experiences and perceptions of children with migrant and refugee backgrounds in Australia for whom English is a second language, aged between 5 and 7 years' (p. 209). The methods included spending time with the participating children, non-language based photo elicitation and other visual techniques, novelty scales ('smiley faces', i.e., feeling faces) and written research techniques. They concluded that the children for whom English was a second language successfully engaged in research when these methods were adopted.

This review is concerned with both the methods adopted and their adaptation, i.e., whether special support is required and, if so, how it is arranged to facilitate the participation of children with disabilities or special educational needs. Given that inclusive education is currently topical (European Agency for Development in Special Needs Education 2009; Svenska Unescorådet 2006) and that children with disabilities or special educational needs are attending educational settings such as regular classes, special classes and special schools (OECD 2007), a review of provisions and adaptations intended to facilitate the full participation of these children in data collection would presumably be a useful and valuable resource. Researchers need to take this occurrence into account and adapt their methods in order to support the participation of all children.

## 3 Review Outline

A literature (article) review was carried out, based on the literature review guidelines laid out by Boaz and Sidford (2006) and on the thematic analysis guidelines laid out by Braun and Clarke (2006). The following is an overview of the search and analysis process:

(1)   Defining the topic and inclusion criteria.
(2)   Searching for studies with a broad set of terms. The query in SCOPUS:

> (TITLE-ABS-KEY("children's experiences") OR TITLE-ABS-KEY("hearing children's voices") OR TITLE-ABS-KEY("children's perspectives") OR TITLE-ABS-KEY("listening to children's voices") OR ALL("the mosaic approach") OR TITLE-ABS-KEY("children's views") OR TITLE-ABS-KEY("children's perceptions") AND ALL(early childhood education)) AND DOCTYPE(ar) OR (TITLE-ABS-KEY("children's voices')) OR TITLE-ABS-KEY(preschool) OR TITLE-ABS-KEY(kindergarten) OR TITLE-ABS-KEY("Nursery school") OR TITLE-ABS-KEY(pre-school) OR TITLE-ABS-KEY("young children") AND (LIMIT-TO(SUBJAREA, "SOCI")) AND (LIMIT-TO(DOCTYPE, "ar")).
> Result of search 5 June 2013: N=350

(3)   Manual title and abstract scanning

> Articles excluded: N=334. Articles included: N=16

(4)   Added search

> Key words found in the 16 retained articles were used in an additional search. The query in ProQuest was:
> ti(hearing children's voices) OR ti((participatory research with children OR researching with children)) OR ti((children's experiences school OR disabilities experiences education)) OR ti((children's perspective playschool OR children's perspectives child care)) OR ti((playschool experiences OR

evaluation in preschool )) OR ti(children's perspectives environment) OR ti((access voices OR accessing children's voices)) OR ti(valuing children's voices) OR ti((education transition experiences OR meaning children school)) OR ti(school lens of child).
Results of the search on 7 September 2013: N=310.

(5)  Additional manual title and abstract scanning

Search of ProQuest added 12 articles to review. Articles included: N=16+12=28.

(6)  Assessing quality

Articles excluded: N=4 Article included: N=24.

(7)  In-depth review via thematic analyses
(8)  A rerun and control of thematic analysis
(9)  Formulation of an overall conclusion and discussion

The articles were located by using the SCOPUS and ProQuest search providers available via the Stockholm University library. The total search result was 350 (SCOPUS) and 310 (ProQuest) articles respectively. A manual title and abstract scan was subsequently carried out on these articles. For an overview of the inclusion criteria, see Table 1.

Many articles were excluded via the inclusion criteria. Some were excluded for focusing solely on adults' perspectives of children's educational life; others were omitted due to their interest in topics not directly related to issues regarding educational settings; while other articles lacked empirical data. The quality of the remaining articles was assessed using guidelines by Thomas and Harden (2008) and Boaz and Sidford (2006). The articles were required to clearly present the studies' aims, methods, analyses and findings, and state whether the children's individual perspectives had been incorporated. Four articles were excluded during the quality check. A total of 24 articles were retained for an in-depth review of data collection methods and special

**Table 1**  The inclusion criteria

| Time period | Review<2013 |
|---|---|
| Target population | Children (of differing ages, with and without disabilities or special educational needs). Note, any research conducted uniquely with older children, such as secondary school children, was excluded. Research targeting both younger and older children was retained. |
| Topic | Social science, education |
| Contained articles | Empirical studies or reviews of a few empirical studies |
| Topic | Children's experiences of and well-being in educational settings. |
| Geographical location of researchers | International |
| Quality | Peer-reviewed articles and quality check of this review |

support. Braun and Clarke's (2006) process of thematic analysis inspired the in-depth review. Two separate analyses were conducted: the first concerned the data collection methods and the second concerned the special support. The first analysis included the following stages: reading and re-reading of the articles and noting content relevant to the aim of this review (i.e., which data collection methods were adopted by the researches); organising the content into units (e.g., the applications of drawings and photographs were coded as visualisations); establishing prevalence of methods adopted (e.g., prevalence of visualisations); searching within data for themes; controlling this search; defining and naming themes; and selecting key quotations from the articles to feature in the result presentation. The second analysis included the following stages: reading and re-reading of the articles and noting content relevant to the aim of this review (i.e., what kind of special support was provided); organising the content into units (e.g., the support provided by teachers and researchers were coded as adult support); establishing prevalence of special support provided (e.g., the prevalence of adult support); searching within data for themes; controlling this search; defining and naming themes; and selecting key quotations from the articles to feature in the result presentation. After these two analyses an overall conclusion and discussion was formulated.

## 4 Results and Analysis

The reviewed articles were numbered in ascending chronological order, see Table 2.

Although the articles were published in the period from 1983 to 2012 inclusive, the majority were written in recent years. Most of the researchers are female and working in Europe, North America or Australia. The article topics include: e.g., actual and ideal school experiences; childcare activities; school toilets; loneliness at school; transitions to school; first year at school; rules in primary school playgrounds; outdoor environments; children's and parents' perspectives on the purposes of playschool; democracy, membership and trust at school. The articles

**Table 2** Articles reviewed; researcher(s) and year of publication

| | | | |
|---|---|---|---|
| 1) | Lee, Statuto and Kedar-Voivodas (1983) | 13) | MacDonald (2009) |
| 2) | Wiltz and Klein (2001) | 14) | Barksdale and Triplett (2010) |
| 3) | Westling Allodi (2002) | 15) | Einarsdottir (2010) |
| 4) | Vernon, Lundblad and Hellström (2003) | 16) | Einarsdottir (2011a) |
| 5) | Berguno, Leroux, McAinsh and Shaikh (2004) | 17) | Einarsdottir (2011b) |
| 6) | Cremin and Slatter (2004) | 18) | Gray and Winter (2011) |
| 7) | Curtin and Clarke (2005) | 19) | Harcourt (2011) |
| 8) | Dockett and Perry (2005) | 20) | Kragh-Müller and Isbell (2011) |
| 9) | Thomson (2007) | 21) | Kellock (2011) |
| 10) | Clark (2007) Note: This is a review. | 22) | Hreinsdottir and Davidsdottir (2012) |
| 11) | Einarsdottir (2008) | 23) | Tertoolen, Oers, Geldens and Popeijus (2012) |
| 12) | Ajodhia-Andrews and Berman (2009) | 24) | Thornberg and Elvstrand (2012) |

reviewed incorporate responses of young and older children with and without disabilities (e.g., children on the autistic spectrum, children with Down syndrome, children with physical disabilities) or special educational needs (e.g., behavioural or learning difficulties).

Citations (presented numerically in Table 2) and quotations from the articles feature in the following results and analysis sections for the purposes of illustration and transparency.

## 4.1 Methods Used

The researchers employed interviews, observations, questionnaires, visualisations, writing, child-directed tours, informal discussions and child preferences. The data collection methods identified were grouped into two themes: traditional and innovative methods. For an overview, see Table 3.

In Table 3, it is revealed that data was commonly collected via interviews and visualisations, but data was also collected via observations and informal discussions. It should be noted that the observations commonly were used as a background or starting point from which to understand, for example, interviews and visualisations, but were also used to collect information on children's perceptions of school. Writing, questionnaires, child-directed tours and child-preferences were also adopted, but these methods were less common. The traditional data collection methods include interviews (e.g., open ended or structured dialogues), observations (of educational settings, participating children or children playing school conducted with pen and paper or via recordings) and questionnaires. The innovative data collection methods consist of visualisations (e.g., children's photographs, children's drawings, picture books, children's maps), writing (e.g., children's text, reflections, journals), child-directed tours (i.e., a child shows and describes the setting to the researcher as they move through it together), informal group discussions (e.g., workshops) or informal individual discussions with the researcher, and child preferences (i.e., the researcher uses material of interest to the children such as books, toys and board games, to make the research achievable, joyful and natural for the child). Innovative methods do not appear to have universally established labels, unlike traditional methods which are consistently referred to in articles as interviews, observations or questionnaires.

The interviews (e.g., Article 7), observations (e.g., Article 9), visualisations (e.g., Article 20), writing (e.g., Article 3), child-directed tours (e.g., Article 11), informal

**Table 3** An overview of the data collection methods and prevalence

| Data collection methods | | | | |
|---|---|---|---|---|
| Traditional | | | | |
| Interviews n=18 | Observations n=13 | Questionnaires n=1 | | |
| Innovative | | | | |
| Visualisations n=18 | Writing n=6 | Child-directed tours n=2 | Informal discussions n=11 | Child preferences n=5 |

Note Total number of articles, $N=24$

discussions (e.g., Article 21) and child-preferences (e.g., Article 12) commonly generated data that was qualitative in nature. The verbal conversations, writing and visualisations were, at times, used to determine the prevalence of opinions by, for example, stating what the majority of children agreed upon or liked to do in child care (e.g., Article 20). In one article (Article 2), the results from structured observations were integrated. These structured observations generated quantitative data. In two out of the 24 articles (Article 1 and 5), the results from semi-structured interviews were presented, and in one out of the 24 articles (Article 4), the results from a semi-structured questionnaire were presented. The semi-structured interviews in Article 1 appeared predominately quantitative, while the semi-structured interviews in Article 5, and questionnaire in Article 4, generated data that was quantitative and qualitative.

The analysis also revealed that the majority of researchers, 15 out of the 24 articles (e.g., Article 14), combined traditional and innovative methods (see quotation from Article 14 below). A combination of traditional and innovative data collection methods were, in some articles, labelled as adopting a 'Mosaic approach' (Clark and Moss 2011).

> Quotation from Article 14: This paper explores the voices of elementary children in public schools. Three databases were used including (a) interviews with 25 elementary students, (b) drawings and writings created by 225 third through sixth-grade students about their high stakes testing experiences, and (c) observations in two first-grade classrooms (Barksdale and Triplett 2010 p. 1).

The researchers in five out of the 24 articles (e.g., Article 3), combined innovative methods only. For instance, drawings were combined with writing.

A few researchers, in two out of the 24 articles (e.g., Article 23), combined solely traditional methods, such as interviews with children and observations of children and educational settings, and two out of the 24 articles relied on traditional semi-structured interviews only (e.g., Article 1).

Eight out of the 24 articles not only involved children as participants, but also involved adults in the research processes. For instance, these researchers conducted interviews with the personnel from the settings and parents. Observations of personnel were also conducted. They argued that observations of and interviews with adults were essential for obtaining a fuller picture of the children's educational life, for the processes of triangulation and for obtaining adults opinions about the children's experiences. In one of these articles the researchers also validated the children's 'voices' by comparing them to the opinions of the adults.

Furthermore, the method analysis revealed that half of the articles report on researches that were conducted with children. In five out of these articles the researchers labelled their research as participatory.[1] The children participating in those studies were, for instance, invited to formulate research questions, gather data and participate in reflections on the data with the researchers. These studies were participatory and child-led in slightly different ways, as illustrated in these quotations:

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[1] Participatory is a term that refers to the active engagement of children during research (Clark and Moss 2011; Gray and Winter 2011).

Quotation from Article 18: The present study seeks to extend current thinking on participatory research by actively engaging 36 young children with and without a known disability in all aspects of a research project (Gray and Winter 2011 p. 309).

Quotation from Article 21: …|whilst the term participatory action research is being used in this study, it is to be considered as 'part'-participatory action research due to the nature of participation. The children involved took part ownership of the process but due to their age it was felt that a researcher-driven element was still required to follow a rough format to cover the ground necessary to collect appropriate data for the study (Kellock 2011 p. 45-46).

Three out of the 24 articles used student teachers or teachers as co-researchers; they conducted the interviews, played the research games and asked the children to draw pictures.

### 4.1.1 The Role of the Child

The role of the child in these studies could be to describe to the researchers at the beginning of the research process his or her experience of and well-being in an educational setting. That could be the extent of the child's involvement or the child's role could also include defining topics, collecting and analysing data alongside the researchers and, in so doing, opinion-sharing responses over time. In the latter cases, the child was actively involved in the research process. The concept of involving children in research could therefore be interpreted and understood in two prevalent ways: (a) the collection of children's responses as for example in Articles 1 and 3; and (b) the active participation of children and consulting with them during research process as for example in Articles 18 and 21. Interpretation 'b' may also be interpreted as 'child-led research'[2] (Article 18).

### 4.2 Special Support Offered

During the analysis of the data collection methods used, with particular attention to the special support offered to children with disabilities or special educational needs, it became apparent that seven out of the 24 articles (Articles 3, 4, 7, 12, 18, 19 and 21) were explicit about the participation of children with disabilities or special educational needs and that six out of these seven articles incorporated descriptions of special support offered. In article 7, interviews conducted with children that have physical disabilities were presented, but there was no mention of special support offered. The special support identified was grouped into two themes: relational and material (see Table 4).

The support depending on and offered by another person is labelled as relational. In five out of the six articles (Article 3, 12, 18, 19 and 21) relational support was identified. Relational support was either given to a child by an adult (see quotations

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[2] Research that is planned, conducted and analysed by children with support from an adult (a researcher) can be termed as child-lead research (Kellet 2011).

**Table 4** An overview of the special support and prevalence

| Special support offered | | | | | |
| --- | --- | --- | --- | --- | --- |
| Relational | | Material | | | |
| Adult n=4 | Peer (more able) n=2 | Adaptations n=4 | Picture symbols n=1 | Child preferences n=3 | Exclusion of difficult questions n=1 |

Note Total number of articles, $N=24$

from Article 3 and 19 below), or by a more able peer (see quotation from Article 18 below). Relational support from both a peer and an adult was provided in one of the articles (Article 21). So, in addition to informing researchers, defining topics and collecting and analysing data alongside the researcher, the role of a child could be to support a less able or shy peer.

> Quotation from Article 3: Most of the children wrote the texts themselves, but in those cases where the child was unable to write the special educator wrote down the child's words (Westling Allodi 2002 p. 185).
>
> Quotation from Article 18: Observations of interactions within and between dyads revealed that more able children tended to take the lead role. They were frequently observed modelling the use of the camera or tape recorder for their partner. Listening to the children's discussions revealed how they co-construct knowledge and share meaning about their world. For example, Amy was asked by her partner who has Down's syndrome, how to work the camera. Turning it over in her hands Amy develops her hypothesis and tests her theory: … here, that's the wee window you look through, see and that's the bit you press to take the picture. I'll have a wee go first, see it works. That's how you do it (Gray and Winter 2011 p. 318).
>
> Quotation from Article 19: |…| and at times, worked with a familiar support adult to try to ensure that individual children [e.g., the children whose communication competence required additional support] were empowered to "opt in" to the research (Harcourt 2011 p. 833).

Support such as adaptions, picture symbols, child-preferences and exclusion of difficult questions are labelled as material support. In five out of the six articles (Article 4, 12, 18, 19 and 21) material support was identified. For example, picture symbols were used as a communication tool between a child with speech difficulties and a researcher, material was adapted to make it easier to hold and move, group sizes were reduced, accepting environments formed, elements of the children's interests were incorporated (child preferences) in order to motivate them and encourage their participation, and difficult questions (in a questionnaire) were excluded from result (see quotations from Articles 4, 12, 18 and 21 below).

> Quotation from Article 4: It was difficult to develop questions clearly understood by children of different intellectual abilities and differing backgrounds. Some of the original questions were difficult for children to interpret, and these questions were excluded from our results (Vernon et al. 2003 p. 51).

Quotation from Article 12: The Talking Mat [a practical tool and technique used to support interviews with those who do not use speech to communicate] was also modified and uniquely designed for Ian. For example, knowing that he liked the Dora cartoon character, Ajodhia-Andrews created the Dora Talking Mat. This mat was repurposed from a Dora paper folder. With Ian, she referred to the Talking Mat as the Dora Game. In recognizing that Ian might have limited fine motor abilities, no Velcro was added to the Talking Mat; she wanted the mat to maintain a smooth surface. This was to allow Ian to easily move the picture symbols around on the mat or to remove any if he desired (Ajodhia-Andrews and Berman 2009 p. 933).

Quotations from Article 18: |…| an artefact, Molly a rag doll, thumbs up and down stickers, smiley faces, drawings, disposable cameras and tape recorders [were used in study] (Gray and Winter 2011 p. 313). They [the children participating] were informed that Molly would be starting at their school in September and asked what question(s) they thought she might ask them about the school before she started (Gray and Winter 2011 p. 314).

Quotation from Article 21: Sherilee [an extremely shy girl] really benefited from being in a smaller group, where she was able to use the photography and discussions to bring her ideas to the group in an accepting environment (Kellock 2011 p. 52).

Four out of these six articles combine relational and material special support (Articles 12, 18, 19 and 21).

The fact that the relational and material support was usually related to extended timeframes was underlined. The researchers remarked that involving these children, informing them of research and obtaining their responses was more time-consuming than with the other children in the settings.

## 5 Conclusion and Discussion

The overall conclusion of this review is that the researchers who involved the children's responses on educational settings employed various methods, including interviews, observations and questionnaires which in this review are termed as traditional data collection methods. The researchers also employed innovative visualisations, writing, child-directed tours, informal discussions and child preferences. The researchers offered special support to children with disabilities or special educational needs which created opportunities for those children to opinion-share. The special support was relational, i.e., support from an adult or a peer, and material, i.e., adaptations, picture symbols, child preferences and the exclusion of difficult questions.

### 5.1 A Discussion of the Methods Used

According to this and earlier reviews (Clark et al. 2003; Due et al. 2014; Fargas-Malet et al. 2010), researchers interested in involving children's responses on their educational settings could employ traditional data collections methods, innovative data collection methods and use methods in various combinations. Various methods appear

to have been combined to compensate for potential limitations related to each method when used in isolation. It is likely that the researchers who adopted innovative methods such as drawings, child preferences and informal conversations made the research activities more 'natural' and 'fun' for the children.

Not all of the researchers appear to focus solely on grasping the children's view. A few researchers seem to be concerned with 'seeing' these via observations. Observations may be very valuable to researchers, especially as a starting point for research (Clark 2007; 2011; Kragh-Müller and Isbell 2011), but it does not necessarily reveal the children's own perspectives. This was not the case when drawings and photographs featured in the studies' designs, as these pictures and images were accompanied by personal commentaries from the children. Kragh-Müller and Isbell (2011) note that this way of managing visual data 'was used to accurately interpret the drawings in accordance with the intent of the child' (p. 19). I consider that it is important for researchers to critically reflect on the use of observations in research aimed at identifying, describing and analysing children's views.

In addition, some of the researchers saw the value in combining children's perspectives with those of adults to gain a fuller picture of educational life. MacDonald (2009) wrote: 'The children's drawings and comments have been combined with observations and anecdotes from parents and the classroom teacher in order to offer a richer insight into the process of starting school' (p. 40). Certain researchers also confirmed the children's views by relating them to those of the adults. For instance, a child's perspective was considered reliable if it was shared by an adult: 'The findings suggest that it is indeed possible to consult with these young children. Their responses matched adult perceptions (as gained through parent and teacher interviews and through observation) most of the time' (Cremin and Slatter 2004 p. 464). As well as empowering children in this way, opting for this combination of views could in other research projects have a diminishing and disempowering effect on the children. If adults appear to know children's own experiences, the children might not necessarily be consulted as a consequence. I consider that it is important for researchers to find a balance in the involvement of adults in research aimed at grasping children's views in order to ensure that the findings are rooted in the children's own experiences. Research involving both adults and children is undoubtedly effective when researchers are interested in comparing perspectives on education and when adults' and children's perspectives are studied.

## 5.2 A Discussion of the Special Support Offered

Almost a third of the researchers in the articles reviewed indicated that children with disabilities or special educational needs were participating and offered these children extended timeframes, relational special support and material special support. The children with physical disabilities (in Article 7) were not offered support during interviews. According to the researchers, they were relatively academically able. Given that, the participating children were not always explicit described, it is unclear whether the other researches included responses from children with disabilities or special educational needs. However, given that children with disabilities or special educational needs should be included (European Agency for Development in Special Needs Education 2009; Svenska Unescorådet 2006) and are attending educational

settings such as regular classes, special classes and special schools (OECD 2007), it is likely that these children were attending educational settings where research was being carried out. The implication for future researchers is to describe the participating children in greater detail so that it may be known if any participating children had disabilities or special educational needs.

Since children with disabilities or special educational needs are usually a minority within a larger group of children, when they are being included (OECD 2007), their 'voices' may feature in research findings but lack the power to influence results to the same degree as the voices of the majority children. Therefore, a further implication for future researchers is to describe the influence of minority groups on the results. It is valuable to know if and how their experiences differ from those of the other children and whether or not they have an impact on the results. One researcher (Westling Allodi 2002) in the articles reviewed explicitly described the well-being and experiences of the children with special educational needs alongside those of the other children in the setting, making it possible to grasp the differences between the two groups of children and to understand how responses from a minority group can differ from those of a majority group. Furthermore, one researcher (Kellock 2011) in the articles reviewed explicitly described the research experiences of a very shy girl alongside those of the other children participating, making it possible to grasp differences and similarities between children.

It is also important to reflect, as a researcher, on whether other minority groups lack the power to influence overall research results (e.g., children from minority ethnic groups).

## 5.3 Potential Benefits of Involving Children's Responses

The data collection methods employed and special support offered by the researchers in this review created opportunities for the participating children to opinion-share. By these means the researchers are offering knowledge about educational settings that is rooted in the children's lived experiences. The researchers are also fulfilling the children's right to be heard (as stated in the CRC) and illustrating the children's communication skills:

> Quotation from Article 14: The data demonstrate that elementary children have much to say about their overall school experiences, including their worries at school, their feelings of disconnect with their teachers, the lack of meaningful learning experiences, and their desire to be heard as unique individuals. These findings challenge educators to make changes in our American classrooms in order to best meet the needs of young children (Barksdale and Triplett 2010 p. 1). Quotation from Article 16: The results of this study indicate that the children had the experience, knowledge, and ability to reflect on both their playschool experience and the transition to primary school and therefore that their voices should be heard and listened to by adults, thereby enabling children's perspectives to influence policy and practice (Einarsdottir 2011a p. 737). Quotation from Article 17: The playschool teacher from this school said that she was shocked to hear the children talk about rest time like that, that this was not how rest time should be. 'Rest time should be a cosy period where you can relax

…' In connection with this expression of the children's experience, the playschool teachers discussed whether at this point, during their last year in playschool, the children perhaps didn't need the same type of rest time as when they were younger. One of them said: '… this tells us something about the rest period. When they are at that age, perhaps they do not need to lie down' (Einarsdottir 2011b p. 397).

In addition, the children's participation in the research appears to have had a positive impact on the children themselves. It was reported that their self-confidence grew, they made new friends, learned to express and discuss thoughts and ideas, and gained social experiences. This indicates that participation in research can have positive effects on children's well-being and development:

> Quotation from Article 17: The discussion in the groups often seemed to help the children understand and make sense of things |…| The study also revealed that interviewing children in groups, and asking them to draw pictures from their playschool was a social experience |…| (Einarsdottir 2011b p. 399).
> Quotation from Article 21: Some of the children who did not know each other very well before the project [research] also struck up strong friendships from within the group. Whilst it may be argued that working closely with children in small groups is likely to enhance their confidence anyhow, it is felt that the creative and photographic activities enabled the children to initially begin to communicate in a different way before developing the confidence to verbalise such communication as the project progressed (Kellock 2011 p. 52).

## 5.4 Research Reliability, Validity and Ethics

The researchers have integrated information and reflections on reliability and validity into their articles. They have mentioned, for instance, that the children had answered in a way that was to be expected and reported that the children's perceptions matched those of adults. The researchers have also integrated child quotations, child drawings and photographs into their articles to illustrate data collected, innovative methods adopted or findings reported. This has increased the transparency of the studies and creates opportunities for readers of articles to access examples of children's own verbal and visual responses. Moreover, the researchers have discussed the topic of research with child participants as a way to focus on matters that are meaningful and relevant for the children. Furthermore, the researchers have adopted acknowledged analysis techniques. They have also reported combining different data collection methods, e.g., innovative methods with traditional methods. This could be an attempt to increase the reliability and validity of research adopting innovative methods, as some may perhaps question these. Moreover, data combinations have enabled triangulations, thorough analysis of children's responses and have generated opportunities to present detailed results. Additionally, children were asked to ascertain the accuracy of their previously reported opinions.

The researchers have also integrated information and reflections on ethics into their articles. For example, they reported that ethical approval had been obtained from the national ethical review board; information had been shared with head teachers,

teachers, parents and children and consent had been obtained. The identity of participants was also anonymised. Moreover, the researchers reported the efforts made to take into account the fact that children have less power than adults. The children could choose what to talk about and how much to reveal in, for example, interviews and writing. They were also empowered by active participation in research, where they were given opportunities to influence the aim and outline of research as well as the data analysis. Furthermore, the studies were conducted in the children's own 'spaces' such as schools and preschools, and not in unfamiliar settings. The studies were planned in a way that seemed natural and fun for the children. The children were also invited to opinion-share with peers.

It should be noted that these are examples obtained from the articles, and that such information and reflections (on reliability, validity and ethics) are not included in every article.

During the process of review, it was noted that several of the researchers included reference to children's right to be heard (United Nations 1989; 2008). This is a way to legitimise research with children, and at the same time more generally advocate for children's involvement in research, as some may perhaps question having children as participants in the first place.

## 5.5 Potential Benefits of Review

This review may be useful and valuable to researchers intending to include the responses from children (with and without disabilities or special educational needs) in their research. This review may also be useful and valuable to those working in educational settings or in other settings involving children. The data collection methods and special support may perhaps be adopted in their analyses and evaluations of, for instance, educational activities and routines, spaces and furnishings in schools, program structure and well-being in school. An added benefit of the review is that it could assist school inspectors and responsible authorities evaluating educational settings.

The involvement of children's responses can enrich adults' understanding of how children experience educational settings and their sense of well-being in these environments. Incorporating their perceptions has the potential to influence practice and public policy consistent with the children's concerns.

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