

SCHOOL OF EDUCATION, COMMUNICATION AND
LANGUAGE SCIENCES



Doctor of Applied Educational Psychology

“An examination of the factors connected with social, emotional and behavioural changes in Nurture Group pupils and an exploration of pupils’ experiences.”

Kimberley .J. Whitehead

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TABLE OF CONTENTS

“An examination of the factors connected with social, emotional and behavioural changes in Nurture Group pupils and an exploration of pupils’ experiences.”

Authorship Statement	vii
Overarching Abstract	viii
Systematic Review: “What is known about the effectiveness of Nurture Groups to support pupils with social, emotional and behavioural difficulties in mainstream classrooms?”	
Abstract	2
1. Introduction	3
1.1 Social, Emotional and Behavioural Difficulties and Nurture Groups	3
2. Review Question	5
3. Research Background	6
3.1 Reviews	6
3.2 Research Studies	8
4. Identification of Studies	9
4.1 Criteria for Including and Excluding Studies	10

5. In-depth Review	11
5.1 Moving from broad characterisation (mapping) to in-depth review	11
5.2 Assessment of Methodological Quality	12
5.3 Synthesis of evidence	14
5.3.1 General characteristics	14
5.3.2 Experimental Design	16
5.3.3 Outcomes and Effectiveness	18
5.3.4 Short-term Effects	19
6. Conclusion	23
6.1 Strengths and Limitations of Review	23
6.2 Practical and Theoretical Implications	25
6.2.1 Research	25
6.2.2 Policy	26

Bridging Document

Abstract	29
1. Introduction	30
1.1 Developing a Research Focus	30
1.1.1 Pupils' Voice in NG Studies	30
1.1.2 Processes and Mechanisms	32
2. The Contribution of Epistemology	34
2.1 Epistemology and Ethics	34
2.2 Epistemology and Methodology	36
2.3 Critical Realist Framework	38

Empirical Study: “What is the impact of Nurture Groups on social, emotional and behavioural outcomes as perceived by pupils?”

Abstract	43
1. Introduction	44
1.1 Nurture Groups	44
1.2 Pupils' Views- Legislative Context	45
1.3 Nurture Groups and Pupil Participation	46
2. Research Study	47
2.1 Aims of Study	48
3. Method	48
3.1 Selection of Tasks	49
3.1.1 Photo Elicitation	49
3.1.2 Diamond Ranking	50
3.1.3 Pupil View Templates (PVTs)	50
3.2 Participants	52
3.3 Procedure and Interviews	53
4. Analysis	54
4.1 Superordinate theme: similarity/ difference (with mainstream)	56
4.1.1 Theme: structures	56
4.1.2 Theme: social experiences	58
4.1.3 Theme: separation	60
4.2 Superordinate theme: Process of Choice	62
4.2.1 Theme: choice in comparison with mainstream	62
4.2.2 Theme: relationship with NG staff	64
4.3 Superordinate theme: Barriers	65
4.3.1 Theme: group dynamic	65
5. Discussion	69

5.1 Strengths and Limitations	69
5.2 PVTs and IPA	71
5.2 Next Steps: Further Research	74
Overall References	77
Appendices	94
Appendix A: Systematic Review Stages (Petticrew and Roberts, 2006)	94
Appendix B: Filtering of papers from searching to map to synthesis	95
Appendix C: Search Strategy for electronic databases	97
Appendix D: Inclusion and exclusion criteria	99
Appendix E: List of studies and study descriptors	101
Appendix F: Recording the Search from each electronic database	103
Appendix G: Characteristics of seven quantitative studies included in in-depth review	106
Appendix H: Measures used to evaluate social, emotional and behavioural success	137
Appendix I: Table of calculated effect sizes for quantitative studies	139
Appendix J: EPPI-Centre “weight of evidence” (WOE)	141
Appendix K: Prompt questions developed from examples provided by Wall and Higgins (2006)	142
Appendix L: Procedure followed during process of data analysis	143
Appendix M: Audit trail: example page of transcription	145
Appendix N: Superordinate and main themes identified alongside supporting exemplar quotes from transcribed interviews	149
Appendix O: Superordinate theme: Continuation (of links)	152

Table of Tables

Table 1: Number of outcome evaluations found with different search strategies and identified by unique study descriptors	11
Table 2: Weight of evidence ratings for individual elements for review questions	12

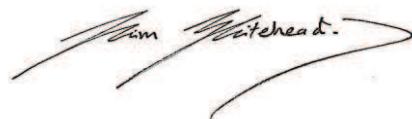
Table of Figures

Figure 1: Descriptive mapping to final synthesis	14
Figure 2: Example of completed Pupil View Templates	52
Figure 3: Example of completed Diamond Rank Activity	60

Authorship Statement

This document has been prepared solely by myself, Kimberley Jane Whitehead. No part of the document has previously been submitted for any degree or qualification and the author has not previously published any related work.

Signed:

A handwritten signature in black ink, appearing to read "Kimberley Jane Whitehead".

Date: 24th September 2012.

Overarching Abstract

Following inclusive practice and the recent upsurge and development of Nurture Groups (NGs) in mainstream schools across the UK, a systematic review was carried out which investigated “What is known about the effectiveness of NGs to support pupils with social, emotional and behavioural difficulties (SEBD) in mainstream classes?” Findings suggest that little research exists which specifically focuses on the lived experiences of NG pupils and despite efforts of researching staff views using various methodologies, pupils’ views have not been sought with the same rigour. Equally, the review highlighted the complexity of contextualised factors involved in promoting the social, emotional and behavioural development of NG pupils and provided the momentum for an empirical study. Therefore, the empirical study is both grounded in the current legislative context as well as seeking to address the paucity in previous NG studies by adopting a qualitative approach to explore NG pupils’ personal experiences in depth. Semi-structured interviews and pupil view templates (PVTs) were used to gather pupils’ experiences of how key features of NGs are related to changes in SEBD. The use of Interpretative phenomenological analysis revealed several themes across pupils and highlighted significant issues for the future development of NGs whilst giving rise to a number of further extensions for research. Lastly, the bridging document provides the conceptual link between the systematic review and empirical study by detailing the theoretical and epistemological underpinnings of the research.

Abstract

This review examined the effectiveness of Nurture Groups (NGs) for improving the SEBD of mainstream primary children by focusing on the primary review question, “What is known about the effectiveness of NGs to support pupils with social, emotional and behavioural difficulties in mainstream classrooms?” The review employed the seven stage methodology described by Petticrew and Roberts (2006) and initial screening achieved a systematic map of twenty studies. The refocusing of the review question into two separate questions allowed seven quantitative studies for the in-depth review. These studies were analysed according to an adapted framework by Cole (2008) and were synthesised on the basis of experimental design; outcomes and effectiveness and short term effects of NGs. All studies found evidence of significant short-term improvements in SEBD outcomes for mainstream NG children using reported scores on the Boxall Profile while the majority of studies found NGs to be effective directly post intervention using scores on the Strengths and Difficulties Questionnaire. These findings were consistent with the examination of effect sizes using data from three out of the seven studies which were in the medium to large range. As only one study provided follow-up data for the long term SEBD outcomes (Cooper and Whitebread, 2007), the review focused on short term effects and did not consider maintained change of NGs. Results are interpreted with caution due to variability in the methodological quality of studies and design limitations (very small sample sizes, lack of randomised control groups). The absence of commonality in statistical reporting also precludes any strong claims for the effectiveness of NGs from existing studies. The review concludes with suggestions for researchers, policy makers and those involved with NGs attempting to improve the SEBD outcomes for mainstream pupils.

1. Introduction

1.1 Social, Emotional and Behavioural Difficulties and Nurture Groups

The Department of Education and Employment (DfEE circular 9/94) defined emotional and behavioural difficulties as below;

“Emotional and Behavioural difficulties range from social maladaption to abnormal emotional stresses...They may be multiple and may manifest themselves in many different forms and severities. They may become apparent through withdrawn, passive and aggressive or self-injurious tendencies” (DfEE, 1994, p7)

Similarly, Law and Plunkett (2009) acknowledge the interaction between social, psychological and child variables that lead to the accumulation of behavioural and emotional problems. Hayden (1997) and OFSTED (1996) also show the importance of many interacting social factors such as sex, age, health and economic status on SEBD. Therefore, the decision about whether a young person is assigned the label of SEBD is said to depend on “a range of factors, including the nature, frequency, persistence, severity and abnormality of the difficulties” (DCSF, 2008. Par.55). In England, SEBD is classified as a special educational need (DfES, 2001a) whilst in Scotland the Additional Support for Learning (Scotland) Act 2004; 2009 (Scottish Government) redefines SEBD as a need rather than a difficulty. This rather broad definition recognises the difficulty that some pupils may possess in communicating their physical and emotional needs and argues that the way in which schools and classrooms are organised may have a significant impact on SEBD (Cooper, 2004). Supporting pupils with SEBD within mainstream classes

raises challenges for teachers who hope to provide inclusive schooling. Recent Government policy (The Children's Act 2004; Every Child Matters, 2003) requires schools to promote the emotional well-being of all pupils and to address the specific needs of pupils that may exhibit signs of emotional and behavioural difficulties.

Nurture Groups (NGs) are an early intervention for children whose social, emotional and behavioural needs are unable to be met in a mainstream classroom (Doyle, 2004). NGs attempt to support emotional growth in an environment that promotes security, routines, clear boundaries and planned (repetitive) learning opportunities. Their underpinning philosophy assumes that each individual child is met at their own developmental level which subsequently provides a starting point for learning experiences. The psychological principles supporting NGs are based on child development theory relating to attachment. Attachment theory focuses on the importance of a child growing up in an environment where they experience a caring and trusting relationships with adults and where these adults provide consistency and a “nurturing environment” (Scott and Lee, 2009). The classic NG model described by Boxall (2002) consists of a class of ten pupils, staffed by two adults who provide a carefully structured and supportive context within which to experience and learn appropriate behaviours whilst following a core curriculum of language, number and personal and social development. NG pupils spend most of their school week in the group with the ultimate aim being full inclusion back to mainstream classes.

The number of NGs across the UK has increased over the last few years with Colley (2009) suggesting that there are 1,000 NGs in the UK. Recently, Binnie and Allen (2008) suggest that all pupils may benefit from having a NG in the school. This is thought to be a result of nurturing

principles extending upwards through the school. Doyle (2003) also found that with guidance from the NG teacher, all mainstream classrooms became increasingly nurturing. The policies and practices in the school became enriched with nurturing principles which had a significant impact not only on the pupils with SEBD, but also on mainstream pupils.

2. Review Question

This review addressed the following question in order to inform policy and practice:

“What is known about the effectiveness of NGs to support pupils with social, emotional and behavioural difficulties in mainstream classrooms?”

The population focus was school-aged pupils within mainstream schools rather than specialist provisions and on those pupils who were described as having SEBD that were sufficiently frequent to require specific intervention from the NG. Historically; these studies collect quantitative data (e.g. teacher's ratings of pupil's behaviour) which can be used to calculate effect sizes of NGs. The intended intervention scope did not cover “nurturing principles” (cf. Doyle, 2003; Lucas, 1999) which involve making changes at the whole class level to the physical or social organisation of classes to which the nurture pupils belong. As the notion of nurturing principles is complex and ambiguous and can refer to many different aspects of schools' policies and practices, a decision was made to focus the review on NGs rather than nurturing principles. This was based on the loose and uncertain way in which nurturing principles have been described in existing literature, but also partly on pragmatic reasons

of attempting to simplify the synthesis of outcome measures by avoiding the context specific nature of nurturing principles. However, an emerging number of studies collect “qualitative” data to examine factors related to the implementation of NGs and their acceptability to teachers and recipient pupils. This knowledge may be especially useful for understanding how NGs are implemented and how contextual factors may mediate any effects. Following this, the review also addressed a secondary question, specifically, “How do NGs enhance the SEB functioning of pupils?” This question (question b-reported elsewhere) raised interesting issues for policy, practice and future research.

3. Research Background

3.1 Reviews

To date, two existing reviews have assessed the effectiveness of interventions (including NGs) with samples of pupils which include, or only include, pupils with SEBD.

Evans et al., (2003) investigated what is known about the effectiveness of different strategies relevant to supporting pupils with SEBD in mainstream primary classrooms to facilitate teaching and learning for all pupils. Search strategies yielded a total of twenty eight outcome evaluations indicating a small amount of primary research activity that describes itself as evaluating the effectiveness of strategies for supporting pupils with SEBD. The kinds of strategies identified and evaluated by Evans et al., (ibid) were underpinned by three main

theoretical models. These were; behavioural models (eleven studies); cognitive behavioural models (fourteen studies); and systemic models (four studies). Importantly, Evans et al., (ibid) found no completed study which evaluated strategies based on a psychotherapeutic model. Subsequently this gap in the evidence base was reframed as a recommendation that studies based on a psycho-therapeutic model, notably NGs, require further evaluation.

Harden et al., (2003) aimed to further develop the aforementioned review by widening the applicability of the research findings to include those from initial teacher education community. The authors sought reports of studies published between 1999 and 2002 which evaluated the effectiveness of strategies for supporting primary aged pupils with emotional or behavioural difficulties in mainstream primary schools or evaluated ways of supporting teachers to use these strategies. Consequently, Harden et al., (ibid) concluded that only five studies could provide an answer to the review question, and further, that three studies had the potential to provide evidence on the effectiveness of strategies based on the psychotherapeutic model. However, only one study looked specifically at NGs where the authors showed improved levels of emotional and behavioural functioning (Cooper, Arnold and Boyd, 2001).

These reviews made a contribution to the literature on the impact of NGs on SEB development of pupils although both studies differed in stated aims and scope. Unlike the present review, no previous review has had an explicit focus on supporting pupils with SEBD which focused solely on published NG studies. Both Evans et al., (2003) and Harden et al., (2003) served to highlight the lack of evidence regarding the effectiveness of NGs. The danger of leaving this gap in the evidence base unfilled is that

policy and practice may develop on the basis of enthusiasm for NGs rather than informed by robust evidence.

3.2 Research Studies

NGs were first recognised as a useful early intervention for pupils with SEBD by the Department for Education and Employment (DfEE, 1997). Since then researchers have set out to establish the general and specific nature of the effectiveness of NGs. Binnie and Allen (2008) suggest that within the published literature there is a wealth of evidence demonstrating the positive impact that NGs offer and Seth-Smith et al., (2010) describe the outcomes of NGs to date as “promising” (p22).

O'Connor and Colwell (2002) provided a longitudinal study assessing pupils' SEBD on entry to NGs, following their development in the group, and then for two years following their return to mainstream education. Results suggest that the SEBD experienced by these pupils were significantly reduced, and additionally, that the majority of gains were maintained over time adding credibility to NGs. An often quoted study is that of Cooper and Whitebread (2007) who present findings from a national research study. Headline findings from the study found that NG pupils showed significant improvements in social and emotional functioning compared to similar pupils in schools without a NG. More specifically, they found that the effect was more pronounced for NGs that had been established for more than two years. Further, they showed that the greatest improvements in pupils' SEBD occurred in the first two terms of the project, with cognitive progression continuing to improve in third and fourth terms. These findings are both congruent with the underlying philosophy of NGs- supporting the emotional needs of pupils foremost- and also the results of O'Connor and Colwell (op cit) that gains in social and emotional functioning can be maintained over time.

Cooper (2004) reports a recent upsurge in interest in NGs as a form of provision for younger pupils with SEBD, and similarly, Scott and Lee (2009) suggest that over the last few years there has been increasing interest in whether different variants of the classic NG model can prove equally effective (for example, Lucas, Insley and Buckland, 2006). Cooper et al., (2001) evidence this “second flowering of the NG approach” (p161) as many local authorities being in the process of establishing NGs or having plans to establish them. These developments, coupled with the positive findings from previous NG research, highlight the need for further evaluative studies. The high level of spending on NGs for pupils identified with SEBD makes it important to evaluate whether they result in more positive outcomes.

4. Identification of Studies

This review employed the seven stage systematic methodology described by Petticrew and Roberts (2006) summarised in Appendix A. To locate relevant studies, different sources of published and unpublished research literature were searched between August 2010 and October 2010 with an update for newer reports conducted in December 2010 using equivalent strategies. Searches were conducted on four commercially available databases for systematic reviews (Cochrane Collaboration; Campbell Collaboration; What Works Clearing House; and EPPI Centre) as well as three electronic databases (Scopus; Ovid, and Eric). These were supplemented by searches of relevant grey literature and conference proceedings (SIGLE); searches of research in progress (National Research Register); dissertation and thesis databases

(CINHAL, Dissertation Abstracts); as well as personal communication with experts in the field of NGs (Appendix B). Highly sensitive search strategies were developed using combinations of controlled vocabulary terms (using database thesauri) restricted to the title and abstract fields. These searches covered the full range of publication years available on each database at the time of searching. These searches were supplemented by hand searching journals, reference lists of already identified reports for further citations, and bibliographies of reviews to identify additional studies (Appendices C and F). Full reports were obtained and processed for 62 citations (Appendix E).

4.1 Criteria for Including and Excluding Studies

This review focused on as comprehensive a range of research studies as possible and included work that was quantitative and qualitative in nature. To identify studies matching the intended scope of the review, inclusion and exclusion criteria were developed (Appendix D).

Twenty studies were identified to be within the scope of the review (first screening of inclusion and exclusion criteria) whilst forty two were excluded at this point but were used to inform background and conceptual grounding for the presentation of the findings. Eighty percent of the twenty outcome evaluations were found on commercially available bibliographic databases; with a further four studies uniquely identified by scanning the reference lists of already identified reports and journals. This illustrates the difficulty with relying solely on one source. The majority of reports (N=12) were written and published after 2005, five reports were published on or after 2000, with only three written or published between 1995 and 2000. The year of publication of the earliest studies was 1997 (Iszatt and Wasilweska, 1997; Bennathan, 1997).

Table 1: Number of outcome evaluations (N=20) found within different search sources and identified by unique study descriptors.

Source	Number of Studies and study descriptor
Bibliographic Databases; -SCOPUS -OVID -ERIC	N = 12 [studies 2;3;4;5;6;7;9;10;13;14;16;17] N = 3 [studies 29;36; 39] N = 1 [study 42]
Hand searching	N = 2 [studies 23; 27]
Reference lists	N = 2 [studies 48;49]

5. In-depth Review

5.1 Moving from broad characterisation (mapping) to in-depth review

Initial screening led to the creation of a systematic map of twenty studies. On inspection, there was a split between those that were quantitative or had a qualitative element to methodology and data collection. The refocusing of the review question into two separate questions allowed nine studies to provide a quantitative assessment of the effects of NGs on the SEBD of pupils (question a), and four qualitative studies which used a collection of methods, interviews and questionnaires (question b). Although question b is presented elsewhere, it is important to note the nature of the decision making process in including the four qualitative studies for the in-depth analysis as this impacted on the assessment of the study's methodological quality (Figure 1). This was based on a shared theoretical perspective of these studies. In particular, question b focused on how NGs are effective when considering SEB outcomes for pupils in mainstream schools. An underlying thread across these four studies was the theoretical assumption that those involved in, or

benefitting from the NG intervention have a reservoir of experience regarding NGs and that their views on questions and issues are salient.

5.2 Assessment of Methodological Quality

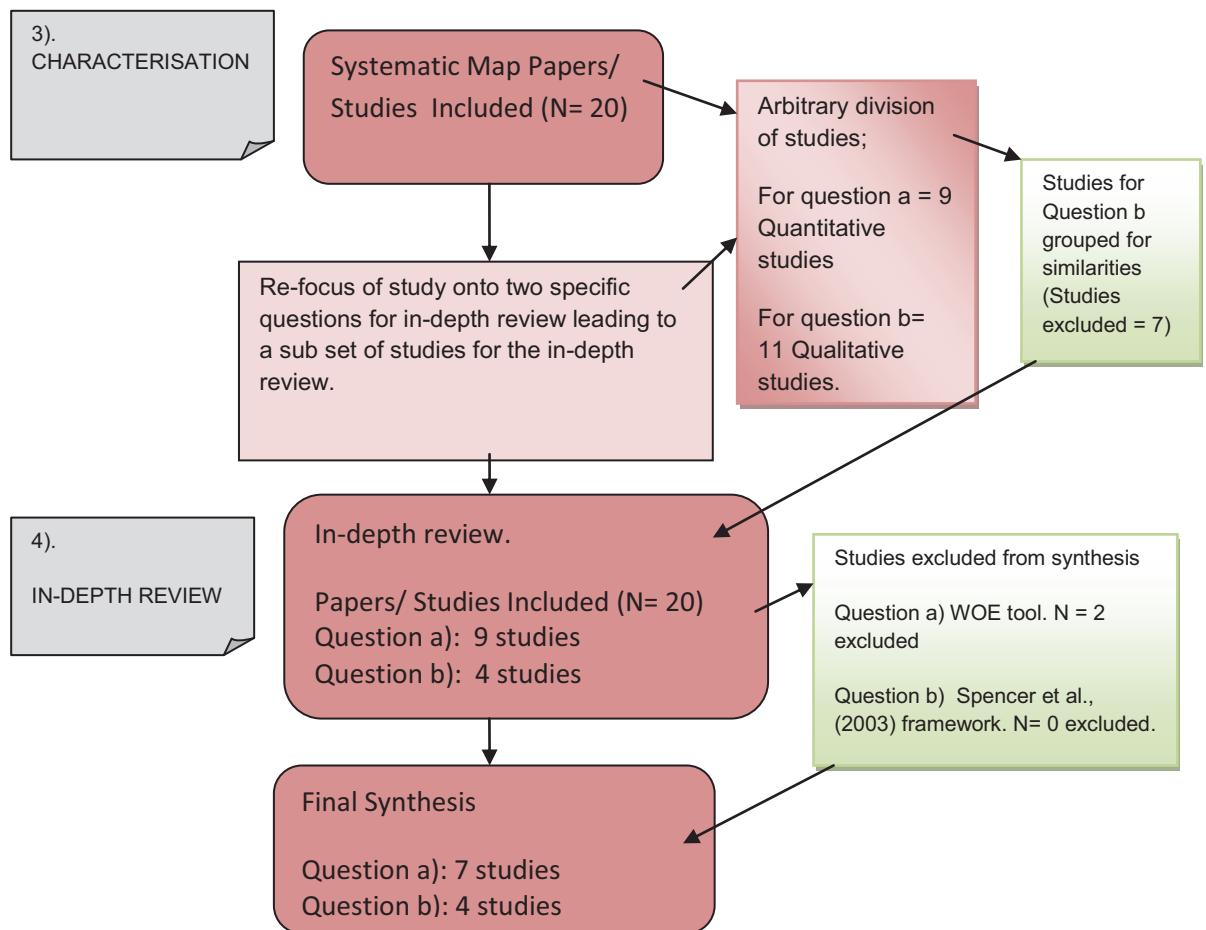
Building on the framework of MacDonald, Sheldon and Gillespie, 1992 and Oakley and Fullerton, 1996, the EPPI-Centre “weight of evidence” (WOE) tool (EPPI-centre, 2000) was used to formalise the process of appraising each study and ensured that the main methodological issues were examined systematically and individually, rather than in summary form (Appendix J). An overall weight of evidence was then calculated and labelled narratively by differentiating clearly between the following descriptors; high; medium-high; medium; medium-low and low. It was decided that for each study the weight of evidence should be judged jointly for review questions a and b and the outcomes are detailed in shorthand in Table 2.

Table 2: Weight of evidence ratings for individual elements of each review question

Question (a): “What is known about the effectiveness of NGs for pupils with SEBD in mainstream schools?”				
	A. Soundness of study (trustworthiness)	Question (b): “How do NGs enhance the SEB development of mainstream pupils?”		
		B. Appropriateness of research design and analysis	C. Relevance of study topic focus to review question	D. Overall weight of evidence provided by study
Study [2]	Medium	Medium-High	Medium	Medium
Study [3]	Medium	Medium-High	Medium-High	Medium-High
Study [5]	Medium	Medium-High	High	Medium-High
Study [7]	Medium	Medium	High	Medium
Study [10]	Low	Medium-Low	Low	Low
Study [27]	Low	Medium-Low	Medium-Low	Medium-Low
Study [29]	Medium	Medium-High	Medium	Medium
Study [36]	Medium	Medium-High	Medium-High	Medium-High
Study [42]	Medium	Medium-High	Medium-High	Medium-High

Most of the studies received a medium-high overall weight of evidence (N= 4), three studies were rated as medium and only two studies as medium low or low. The main justification of a low or medium low weight instead of a medium weight was that the primary focus of the studies was not seen to address both review questions (a) and (b) although question (b) may have been partially examined. The study by Gerrard (2005) had a confusing and vaguely reported methodology and the process and results were not convincing due to many methodological problems. Further, O'Connor and Colwell's (2002) study was excluded on the grounds of non-matched experimental group and the post-hoc nature of the design which resulted in a particularly small sample in follow-up (dropping from sixty eight pupils to twelve). Both studies were excluded on the premise that the supporting evidence they contributed to overall conclusions was judged to be of insufficiently high quality (Figure 1).

Figure 1: Showing descriptive mapping to final synthesis



5.3 Synthesis of Evidence

5.3.1 General Characteristics

The seven quantitative studies were analysed according to an adapted framework (Cole, 2008) and summarised in tabular form which provided a description of each study's methods (Appendix G).

Additionally, and providing a link to the inclusion criteria, all studies targeted pupils with SEBD identified by their class teachers and/or parents, and who were involved with NGs. The synthesis table shows that all studies used "opportunity samples", meaning participants were

not randomly selected, but drawn from populations convenient to the researcher or host school. Some of the studies describe taking forward NGs at a whole-school, proactive approach to embedding “Nurturing Principles” (cf. Doyle, 2003; Binnie and Allen, 2008); however, all seven studies describe NGs as outlined by Boxall (2002). All studies involved the age range 4-10 years or a small part of this age range (e.g. 5-7 years). Beyond this, there was considerable variation between the finer distinctions of each study. Sample sizes varied widely (range N = 36 and N = 546) and there was significant variation in the length of NGs from the point of evaluation (from 2-3 school terms to 8 months/ 4 school terms). It was thought that the SEB outcomes for pupils may be different depending on the model of NG adapted. Three studies (Scott and Lee, 2009; Binnie and Allen, 2008; Sanders, 2007) involved part-time NG models otherwise known as “new variant NGs” (Cooper and Whitebread, 2007). The main difference between part time NGs and the classic Boxall NGs is the amount of time pupils spend in the NG, which, according to Cooper and Whitebread (2007) can vary from half a day to four days a week. Importantly these NGs retain core structural features such as small group size, staffing by a teacher and a teaching assistant, and adhere to the core principles of the classic NG model in terms of developmental emphasis and providing a holistic curriculum. There was only a slight variation between the amount of time spent in NGs. Scott and Lee (2009) report results from four different NGs where all pupils received five half days, apart from one group which received four half days. Binnie and Allen (2008) report findings from six NGs where each pupil attended the NG for 4 morning sessions per week, and Sanders (2007) report results from a NG run on a “part-time basis” (Sanders, *ibid*) but did not detail the frequency of attendance in the group.

Three studies (Seth-Smith et al., 2010; Cooper et al., 2001; Cooper and Whitebread, 2007) involved classic Boxall NGs which accord to the model first established by Boxall (Bennathan and Boxall, 2000; Boxall, 2002). Due to the number of NGs reviewed in the studies of Cooper et al., 2001 and Cooper and Whitebread, 2007, and the longitudinal design of the studies, some variations of NG models were involved, although the vast majority of NGs conformed to the full time model. One study (Reynolds et al., 2009) did not detail the type of NG experienced by the 117 pupils in their study. Similarities between lengths of time spent by pupils in part time NGs, and comparability in time spent by pupils attending full time NGs allowed results to be cumulated across studies.

5.3.2 Experimental Design

Studies were synthesised on the basis of adequate controls in evaluative design. All studies except Binnie and Allen (2008) included a control group. There was agreement across studies regarding the function of the control group(s) –to compare the effectiveness of NGs with a non-treatment population. However, huge differences existed across studies as to how the control group was operationalised. It was clear that some studies experienced particular difficulties with comparison groups. In the six studies that included a control group, all matched controls were based on non-random allocation and comparisons were sought after NGs were established. All studies were based on a quasi-experimental design. For example, Sanders (2007) described a process where three schools were invited to bid for funding which would help them establish a NG, and a fourth school (subsequently selected as the comparison school) was unable to establish a NG but was comparable to the other schools on a set of pre-established criteria. Seth-Smith et al., (2010) similarly describes the quasi-experimental design of studies by noting the non-

randomised pre-test/ post-test design determined by the “willingness” of schools to take part.

Of the six studies with comparison groups, the majority ($N = 5$) used a matching process to ensure internal validity at the level of the comparison school. The most common set of criteria to match comparison schools was the size of schools (Sanders, 2007), levels of socio and economic deprivation (Sanders, 2007; Seth-Smith et al., 2010), and levels of SEBD reported (Sanders, 2007; Reynolds et al., 2009; Seth-Smith et al., 2010; Cooper et al., 2007). Three studies also matched controls on the basis of age and gender (Scott and Lee, 2009; Cooper et al., 2001; Cooper et al., 2007). However, Scott and Lee (*ibid*) used a case-control study design (Robson, 2002), rather than a matched school control design. In this study case control pupils were selected by the school as having additional support needs in relation to social and emotional development but who remained in full-time mainstream education.

There were inherent difficulties with the pre/post design of all seven studies in terms of internal validity (selection effects, maturation) and external validity (generalisability of findings). Despite attempts at being methodologically rigorous, studies struggled with the heterogeneity of SEBD found in pupils attending the NGs, alongside the problem of small numbers of participants. Despite attempts at either matched schools or matched pupils, many studies commented on difficulties in comparing baseline measures for control and NG pupils and a subsequent number of studies altered their statistical analysis. For instance, two studies commented on the difficulty drawing a comparison group from the same school as the NG due to the fact that levels of need may not be comparable (Seth-Smith et al., 2010; Scott and Lee, 2009) The alternative of matching control schools introduced unavoidable

differences between experimental and controls in quasi-experimental studies as other variables had to be considered when interpreting results. Reynolds et al., (2009) alluded to this point when they suggested that it is not yet possible to control for school effects in terms of prior differences between those schools with and without NGs as some schools may show a “philosophical bias” (Cooper and Whitebread, 2007) towards the NG. Further, Reynolds et al., (2009) called for a critical need for random assignment of both matched schools and matched pupils in NG research so comparisons of all conditions can be made. However, as pointed out by Seth-Smith et al., (2010) random assignment may not always be possible as pupils selected for NGs are based on severity of need, independent of study considerations.

5.3.3 Outcomes and Effectiveness

All seven studies found NGs to be effective directly post intervention, according to the criteria set by each study and research questions posed. Comparisons between studies were complicated by the fact that the success criteria varied across studies with some using a range of qualitative measures designed specifically for the particular context of the research or school environment (Binnie and Allen, 2008; Reynolds et al., 2009). Nevertheless all studies used the Boxall Profile (Bennathan and Boxall, 1988; Boxall, 2002) and five used the Strengths and Difficulties Questionnaire (Goodman, 1997; 1999). This allowed a degree of comparability across all seven studies (Appendix H).

Using the spreadsheet provided by Shaddish, Robinson and Lu (1999), standardised effect sizes (ES) (Cohen’s d) were calculated for pre and post Boxall and SDQ outcomes where possible. Effect sizes for four studies could not be included because these did not provide the data necessary for the computation of ES. Cohen’s d was selected over other

effect size measurements as it is now more commonly used in other published studies enabling immediate comparison with future studies and has clearly articulated benchmarks for what are considered “small”, “medium”, and “large” effects ($d= 0.2, 0.5$ and 0.8 respectively). However, these benchmarks have been criticised because practical and clinical importance depends on the situation researchers are dealing with (Thomson, 2002a, b). With this in mind, the dual approach of reporting effect sizes and 95% confidence intervals allowed confidence in estimating the magnitude of NG effects as well as some precision in that estimate. No attempt was made to pool the summary data where ES were calculated as all studies differed in terms of population; outcome measures used and in study quality although study aims were conceptually similar. Instead, ES are reported individually and careful appraisal of studies was integral to the synthesis (Appendix I).

5.3.4 Short-term Effects

Short-term effects for SEB outcomes as measured by the Boxall Profile are provided first followed by an analysis of SDQ results.

Boxall Profile All seven studies found NGs to be effective directly post intervention according to SEB improvements as indexed by Boxall Profile scores. Comparisons between studies were difficult as few studies used equivalent processes for reporting changes in Boxall scores and no study provided a measure of effect size. Studies were therefore analysed according to how they chose to summarise the effects of NGs.

The first group of studies (Reynolds et al., 2009; Binnie et al., 2008; Seth-Smith et al., 2010; Cooper et al., 2001; Cooper and Whitebread, 2007) reported improvements in SEB outcomes by calculating the difference in pre and post Boxall scores across five subsections on the Boxall Profile. For emotional and behavioural change across these

studies, significant benefits were found in NGs versus controls with all subsections reaching significance levels at the 0.05 level. For example, Binnie et al., (2008) found increased performance for NG pupils on all five subsections with p values <0.0001 using a within-group repeated measures method. Reynolds et al., (2009) analysed scores using a two by two ANCOVA design and found significant emotional and behavioural change in NG pupils compared to control pupils with significance levels ranging from $p = 0.003$ to $p <0.001$. There was only one noticeable exception to this pattern of results. Seth-Smith et al., (2010) used a mixed effect model to test the hypothesis that the change in NG ratings was significantly greater than the comparison group (essentially a group x time effect). This finding was also noticeable as the study employed a mixed effect model comparing baseline mean and end of treatment means, whereas other studies employed multiple regression models (Reynolds et al., 2009), case control designs (Binnie et al., 2008) or repeated measures design (Cooper et al., 2001; Cooper and Whitebread, 2007). Methodologically, this was a mixed study which was strengthened by its use of a fairly large sample size and the use of the SDQ and Boxall Profile scores as sources of evidence. This finding may serve to highlight that NGs are efficacious in changing SEB outcomes on the Boxall Profile, but results will only reach significance levels if the time between pre and post measures is long enough to capture results.

The second group of studies (Scott and Lee, 2008; Sanders, 2007) reported changes in SEB outcomes as clustered Boxall scores giving an overall developmental or diagnostic strand value, or alternatively, separated out all strands of the profile. Both these studies supplemented Boxall scores with data on changes in the incidence of negative playground incidents and negative contacts with home (Scott and Lee, 2008) or with naturalistic observations and interviews (Sanders, 2007).

Comparing Boxall Profiles over a five month period for twenty five pupils, Scott and Lee (2008) found significant results for case pupils who had greater gains in all areas assessed across the developmental strand ($p = 0.012$, $p < 0.05$) and diagnostic strand ($p = 0.007$, $p < 0.01$). Interestingly, Sanders (2007) found a significant difference at the 0.05 level indicating that NG pupils did make significantly greater gains in all areas of the Boxall Profile apart from a few strands in the diagnostic sub strand. This finding provides some agreement with Seth-Smith et al., (2010) finding of more pronounced results found in the developmental strand of the Boxall profile; however, Sanders (2007) study was based on a small sample size, and suffered high attrition rate (comparing only nine pupils over three school terms). Where effect sizes for Boxall Profile scores were calculated for short term effects of NGs across three studies, these were separated out for the five sub strands of the profile. Interestingly, effect sizes for the developmental strand were mostly medium to large, and those calculated for the diagnostic profile were all in the small range, apart from those calculated from the Seth-Smith et al., (2010) study. The highest effect size was reported for Seth-Smith et al., (2010) for the organisation of experience strand ($ES = 0.832$) with the lowest ($ES = -0.291$) for unsupported development in the Cooper and Whitebread (2007) study (Appendix I).

SDQ Five studies provided a measure of change in NG pupils' social and emotional development as determined by a reduction in SDQ scores. Five studies used the teacher version of the SDQ; with only Binnie et al., (2008) providing scores for both teacher's ratings and parent's ratings of pupils' observed behaviour (Appendix H). Notably three studies (Binnie et al., 2008; Cooper et al., 2001; 2007) suggest that social and emotional outcomes were affected significantly in the short-term by the NGs. Two studies (Reynolds et al., 2009; Seth-Smith et al., 2010) reported scores

that did not reach significance levels suggesting no change in pupils' social and emotional outcomes.

There was little consensus regarding the manner in which the SDQ scores were reported. Reynolds et al., (2009) reported results for the mean total difficulties score whilst Binnie et al., (2008) reported reduction in total SDQ scores, but then further analysed scores according to the three categories of "abnormal", "borderline" and "normal." Results found a reduction in the number of pupils categorised as "abnormal" following NG intervention and a subsequent increase in the number of pupils categorised as "normal." Similarly, Cooper et al., (2001) compared the percentages of NG pupils falling into the "abnormal or borderline" category at pre intervention (92%) and compared this to the number of NG pupils in the same categories post intervention (63%). The mean difference in scores was also calculated by chi-square as $p < 0.000$. Only one study (Seth-Smith et al., 2010) separated out SDQ subscales for both NG and control pupils. Although analysis of the subscales revealed no significant changes over time, the change between baseline and the end of intervention was significantly greater in NG pupils for three subscales (hyperactive scale; peer problems scale, and pro-social scale). Interestingly an ES for SDQ scores could only be calculated for Seth-Smith et al., (2010) with an overall ES (total problem score) of -0.725 indicating a medium effect (negative figures as positive results depicted by reduction in scores) with medium effects found for hyperactive scale (-0.404), peer problem scale (-0.634), pro-social scale (0.637) and a small effect for emotion scale (-0.117).

Follow-up Only one study in the in-depth review (Cooper and Whitebread, 2007) considered the longer term SEB outcomes for pupils attending a NG, although O'Connor and Colwell (2002) aimed to

establish whether any improvements in NG pupils had been maintained after two years or longer. However, this study was excluded from the in-depth review with a medium-low weighting due to a particularly high attribution rate and post-hoc nature of design. As a result, the evidence of maintained change of NGs is less clear as only one study providing evidence, with a decision made for the review to focus solely on short-term effects of NGs.

6. Conclusions

6.1 Strengths and Limitations of Review

As noted by Evans et al, (2003) there is currently not enough good evidence about the effectiveness (or otherwise) of NGs- an intervention that appears to be increasingly advocated and adopted by schools. The research by Cooper and Whitebread (2007) also suggests that the number and national coverage of NGs has extended in recent years. NGs have been recommended as an early intervention for pupils with SEBD by the DfEE (1997); however, NGs as of yet have not been subject to a systematic review. Previous reviews taken together have only made a modest contribution to knowledge in this area due to methodological weaknesses in study design, lack of longitudinal studies, and lack of reliable information due to confounding factors (Reynolds et al., 2009).

An important strength of the review was that it was the first to date that has had an explicit focus on supporting pupils with SEBD which focused solely on NGs. This is a significant gap in the evidence base which is currently being used by educators to inform NG practice. The review sought to address this situation by identifying and synthesising existing

NG studies and collating evidence surrounding the impact of NGs on SEBD outcomes for pupils. The review aimed to be as explicit and transparent in its description of the review's methods and the decisions made throughout each stage of its progress. Using specific inclusion and exclusion criteria, a number of studies were systematically assembled that are likely to prove useful to teachers and educational support staff in mainstream schools. The review has made use of the best available evidence and effort has been made to include all relevant studies of NGs.

An important element of the review was the evaluation of trustworthiness of individual studies. The nine studies included in the in-depth review were appraised using the EPPI-Centre WOE tool (EPPI-Centre, 2000). Weights of evidence were based on judgements about; soundness of the study (trustworthiness); appropriateness of research design and analysis; and relevance of study topic focus to the review question. Taking into account quality of execution, appropriateness of design and relevance of focus, an overall weight of evidence judgement was made (Table 2). One limitation of the review concerns the strength of the evidence base arising from the previous studies. Not one study had an overall high weight of evidence assessment. The low methodological quality of the studies made it difficult to extrapolate findings to the wider population of pupils who may be experiencing similar difficulties and recognition should be given to the fact that conclusions are drawn from a limited research base. It may be that the same review using different inclusion and exclusion criteria may have offered new insights into how effective NGs are in supporting pupils with SEBD in mainstream schools. Similarly, some of the studies from which the evidence has not been synthesised because of matters of quality may have been valuable contributions, for example, O'Connor and Colwell (2002). The WOE judgement could also be seen as subjective. The use of my research supervisor or second person for

cross-verification purposes would have increased confidence in the review findings and introduced a more rigorous approach to quality assurance. The same criticism could be levelled at the development and application of inclusion and exclusion criteria for the final selection of studies and key word strategies. Therefore, although some attempt was made to use a transparent system to code studies and to attribute a WOE judgement, conclusions are limited by the fact that multiple coders were not used in this process.

One last weakness concerns problems with the definition of pupils with SEBD. In essence, this review relied on whether the study author's labelled pupils with SEBD screened according to the Boxall Profile and SDQ scores. In all studies, there was a shared method for assessing pupils for SEBD (and hence inclusion in NGs), therefore, I am reasonably confident that the review was comparing studies of similar populations. The use of the Boxall Profile in all seven studies and the SDQ in five studies underlined the use of these measures as a coherent and useful way to screen pupils with SEBD in NGs.

6.2 Practical and Theoretical Implications

6.2.1 Research

The review found a positive effect on SEB outcomes for NG pupils (as measured by the Boxall Profile and the SDQ). Significantly, only one study (Cooper and Whitebread, 2007) considered a follow-up design although O'Connor and Colwell (2002) considered the longer-term gains for NG pupils. Previous research indicates that NGs require to operate for a minimum of two years to be fully effective (Cooper and Tiknaz, 2005); however, SEB outcomes were based on an intervention period of six to eight months. Sanders (2007) also highlights the need to further investigate whether NGs are more successful for pupils of a certain age

as the rate of change of a group of older pupils in their study were less than the perceived change made by younger pupils. The synthesis also highlights the value of gathering NG pupils' views and perceptions of both the intervention and its perceived value. Only three out of seven studies sought to gain the perceptions of NG pupils and one study's results were not available at the time of writing. This raises an interesting reflection on the importance paid to seeking the views of NG pupils directly and subsequent research on NGs should therefore gather the views of NG pupils as a requirement.

Another useful direction is to further explore staff perceptions of SEB advantages of NGs and what are the distinctive features of effectiveness. In this synthesis seven studies relied on staff's perceptions of pupils' outcomes and impact on the whole school system. No study appeared to ask "how" NGs brought about perceived changes or sought to uncover the distinctive features of NGs as relevant and meaningful to those involved. It would be beneficial if future research focussed on employing sensitive methodologies to look at how NGs are theorised by both pupils and staff to bring about change in SEB outcomes for pupils. Through doing so a number of central features and recommendations for establishing effective NGs and a theory-based "index of good practice" (DuBois et al., 2002) can be developed and then used to explore the association between best NG practice and effect size (as measured by changes in the level and intensity of pupils SEBD).

6.2.2 Policy

Many studies suggest a need for a whole school nurturing approach (cf O'Connor and Colwell, 2002; Binnie and Allen, 2008) allowing pupils to remain in their mainstream classes whilst gaining valuable developmental experiences. Binnie and Allen (2008) take this idea a step further by

suggesting the juxtaposition of NGs with the new Scottish Curriculum (A Curriculum for Excellence) which stresses flexibility and developmentally appropriate experiences that meet the emotional, social and intellectual needs of each child (Scottish Executive, 2004). Moreover, Binnie et al., (ibid) argue the strength of NGs is “the opportunity to develop nurturing staff, nurturing classrooms and nurturing schools” (p214) and promote the alignment of NG principles with national policy delivered in mainstream environment. While some authors present evidence of the distinctive effects NGs have on the whole school ethos, there is evidence from review question (b) that a key explanation to the success of “how” NGs bring about improvements in pupils’ SEBD is through the temporary separation and distance that NGs provide from the mainstream class. This tension, presented in the broader literature as NGs versus nurturing principles, has challenges for schools, educational authorities and national guidance in considering the relative benefits of NGs and NG approaches.

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Doctor of Applied Educational Psychology

Bridging Document

Kimberley .J. Whitehead

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Abstract

This paper presents an explanatory link between the systematic review of literature and empirical study. It includes an extensive commentary which bridges the systematic review and empirical study by considering two main areas in greater detail. First, it provides an account of the foundations of the empirical study which includes a detailed examination of pupils' voice in existing NG studies and highlights the importance paid to exploring the mechanisms and processes which bring about positive social, emotional and behavioural changes for pupils. Second, the epistemological positioning of the empirical study is considered. Clarification of my own epistemological position provided the rationale for the design of the empirical study. It also provides a further explanation of the contribution of my epistemological positioning to the research process and a reflection on ethical issues regarding pupils' competence in research; methodological considerations and issues of power imbalance; and, my own positioning in the research process.

1. Introduction

The systematic review aimed to collate existing research findings to answer the question- “What is known about the effectiveness of the NGs to support pupils with social, emotional and behavioural difficulties in mainstream classrooms?” Although the current review primarily sought to review evaluations of the effectiveness of NGs, the fragmentary nature of the evidence base from previous studies, alongside the fact that no prior systematic review had been undertaken, underscored the importance of attending to the social context of NGs when mapping the evidence. Throughout the review, a number of studies emerged which collected qualitative data to examine factors related to the implementation of NGs and the acceptability of NGs to teachers and pupils. This knowledge may be especially useful for understanding how NGs are implemented to achieve maximum benefit and how other contextual factors may mediate any effects. Therefore, two particular frames helped to provide the rationale for the empirical study and to ensure the relatedness between the systematic review and empirical study. These were; pupils’ voice in NGs and investigating the processes of NGs.

1.1 Developing a Research Focus

1.1.1 Pupils’ Voice in NG Studies

The systematic review highlighted the importance of gathering NG pupils’ views of both the intervention and its perceived value. Only three out of seven studies sought to gain the perceptions of NG pupils and one study’s results were not available at the time of writing and will be presented in a subsequent article. Both Sanders (2007) and Cooper et al., (2001) gathered the views of NG pupils’ perceptions; however, Cooper et al., (2001) noted the difficulties experienced in accessing these perceptions

reliably. Further, for review question b it was significant that only one study (Bishop and Swain, 2000) ascertained the views of ex NG pupils, despite the theoretical grouping of these studies being based on the common aim of exploring the perceptions of those most closely involved. Bishop and Swain adopted a semi structured interview format with the authors stating that particular consideration was given to the difficulties of interviewing young children (Lewis and Lindsay, 2000). The subsequent analysis of results was presented as a series of key themes interspersed with direct quotations from school staff, parents, ex-NG staff and classroom teachers. When looking through the analysis, direct quotations from ex-NG pupils were less frequently reported than those of any other participant, a point perhaps referred to by the authors when they noted a consistent story amongst participants and used particular quotations from school staff members to represent the views of all other participants.

The synthesis, therefore, led me to consider the need to obtain the views of NG pupils directly rather than relying on adults to mediate pupils' views. This paucity of research on children's views in this area stands in contrast to UK legislation through the Special Education Needs Code of practice (DfES, 2001a) and also the Additional Support for Learning (Scotland) Act 2004, and later 2009 revisions, which place a duty on local authorities to take the views of children and young people into account when discussing certain aspects of their education. This closely resembles the recommendation by Sanders (2007) who suggests that there is a need to research pupils' perceptions of the reasons for their placement in NGs and what they value about this experience. In this way, the individual detail of NG pupils' accounts is not evident in the existing literature and the "lived" experiences of NG pupils appear to be an overlooked aspect of previous qualitative studies.

1.2 Processes and Mechanisms

Secondly, the way in which NGs bring about positive changes in social, emotional and behavioural outcomes for pupils remains largely unexplored, and, unlike the question of the efficacy of NGs, generally unresearched. From the systematic review, all seven studies included in the in-depth review relied on staff perceptions of pupils' outcomes and experiences and the impact on the whole school system. No study asked "how" the NG brought about perceived changes or sought to uncover the distinctive features of NGs as relevant and meaningful to those involved. The review unearthed the benefit of future research in employing sensitive methodologies to look at how NGs are experienced by pupils, that is, what steps and common features are thought to bring about positive changes in SEBD.

In an attempt to incorporate the emerging qualitative research on NGs, and indeed to address these points, a secondary review question was asked which aimed to remain consistent with the frame offered by current systematic review methodology. The secondary review (question b-presented elsewhere) built on the ideas of Dixon-Woods et al., (2006) that conventional methods for systematic reviews are unhelpful and inappropriate for answering the complex questions that confront policy makers and practitioners. In order to acknowledge the individual variability and the individual context of each NG study, a meta-ethnographic approach (Britten et al., 2002) was adopted based on the closeness of fit between the qualitative methods of the studies and the interpretative methodology used in the synthesis. This synthesis was underpinned by the same interpretative epistemology as many of the NG studies therefore remaining consistent with the epistemology of the research being synthesised. This allowed for both comparison between different studies, but also the preservation of the studies relationships

between concepts within any individual study. This achieved a translation of four studies into one another and the emergence of significant key ideas and concepts. The translations in each study were treated as data and were subject to translations across the other three studies to produce a synthesis where the studies represented a particular line or explanation. In doing so, generalisations made across qualitative studies added to the detailed findings of each NG study, at the same time establishing a shared meaning of important considerations that were transferable across the NG approach. In this secondary review, the third order explanations were seen to be applicable to existing NG studies and provided a useful review of “how” NGs enhance the social, emotional and behavioural functioning of pupils by appraising and evaluating qualitative research studies. These interesting findings highlighted the need for reproduction in other NG studies by stressing how qualitative research can add value to existing research.

With the above features in mind, it seemed pertinent to seek the views of NG pupils regarding what mechanisms brought about positive social, emotional and behavioural changes, and how NGs are experienced. The empirical study, therefore, aimed to address previous research limitations and recognised gaps in NG literature through a qualitative methodology. It was felt important to develop and apply an innovative approach to evaluate and review aspects of NGs in relation to social, emotional and behavioural outcomes and the impact on pupils. In doing so, an appropriate study design and methodology enabled pupils’ thoughts and feelings regarding NGs to be meaningfully captured. By synthesising the focus on qualitative research looking into “how” NGs bring about positive outcomes and including the views of NG pupils, it was hoped that more insightful and illuminating ways of understanding NGs would be highlighted.

2. The Contribution of Epistemology

Three interlocking themes constitute the epistemological positioning of the empirical study. The first relates to the view of pupils' competence in research which asserts that children are competent interpreters of their own worlds and that their voices should be prevalent in research. Why and how this is achieved, then, becomes a critical epistemological issue that immediately foregrounds ethical issues- specifically that of their understanding of research. The second is the questioning of the nature of pupils' participation in the research process which brings forth a range of methodological considerations such as the analytical framework adopted and issues of power imbalance. The third theme relates to the interpretive framework (critical realism) underpinning the research, and the implication and questions that this raises for how pupils' views are represented, and my own positioning in the research process (interpretive stance).

2.1 Epistemology and Ethics

Bray (2007) guards researchers against the theoretical assumptions of "competence" in research which are based on child development models and theories. In short, reliance on such assumptions is problematic as they suggest that capacity increases with age and that there is a direct parallel between increased chronological age and pupils' competence (France, 2004). Despite having little empirical support, such assumptions of children's competence fail to recognise that children may be developing autonomy (Strong, 1995) whilst also failing to recognise the heterogeneity of children and young people. Research does illustrate that it is difficult to define an age at which children can demonstrate an understanding of research and what is expected of them during the process (for example, Kanner et al., 2004; Tait et al., 2003; Broome, 1999). This variability in

viewpoints is only compounded by the fact that most of the research studies had small sample sizes and only a few examined actual participation in a research project with none using a longitudinal approach to examine developing capacity (Miller and Nelson, 2006). The empirical study supports the notion that consulting with children and young people directly is vital to gain an understanding of their experiences of NGs as well as viewing pupils as both competent and reflexive in reporting their own experiences.

My position, therefore, follows the view of children's competence as not focused solely on age, but also understanding and maturity. This is an important perspective because it closely mirrors developments within the UK such as the Special Education Needs Code of Practice (DfES, 2001a) and the Additional Support for Learning Act 2004; 2009 (Scottish Government). The empirical study was informed by a sociological approach to childhood which emphasises the social agency of pupils and their competence (and capacity) to express their perspectives. However, Cocks (2006) raises a view of children's agency which moves away from an essentialist stance of agency (individual held capacity) towards an acceptance of "incompleteness" (p255). From this perspective, Cocks (ibid) raises interesting questions regarding how to measure children's competence in consenting to take part in research if agency is not a static characteristic. As a continuation of these ideas, consent from pupils was established on an on-going basis. Informed consent was gained in a written format (informed consent from parents/ carers and pupils) in an accessible format as well as being verbally re-iterated to pupils during explanations prior to each task to clarify what was being asked of them and emphasising their right to withdraw at any point. During the interviews, a card system was also used to facilitate ongoing consent where pupils could choose to hold up different coloured cards when they wished to stop

or change topics. However, it was important to acknowledge that even with a card system, I was still in a powerful position as pupils may have been unused to the experience of being asked their views and thus be reluctant to ask to stop the interview process. The overall aim was to use language and structures that framed participation as constantly negotiable and reconceptualising “informed consent” as practices that were always in process throughout the research- an approach similar to one discussed by Guillemin and Gillam (2004) where consent is a constant state of becoming, never fully realised or achieved. This fluid notion of consent was addressed throughout the research by embedding “ethical talk” in all discussions (for example, routinely checking that pupils were happy to proceed with certain lines of discussion). This was particularly important for pupils when discussing their perceptions of themselves before entering the NG- issues that could be potentially sensitive for younger pupils. By constantly positioning ethical issues at the foreground and facilitating ethical talk throughout the interviews, this allowed myself to be responsive to the micro-ethical moments during discussions. This meant moving beyond procedural ethics (such as the initial gaining of consent) and acknowledging “ethics in practice” (Guillemin and Gillam, *ibid*) at an individual level during the interviews. For example, considering the complex trust relationship between myself and pupils; deciding how much to probe a pupil about their views; and the way questions were framed. Through being attentive to such issues, this allowed myself to be reflexive in an ethical sense by being alert and prepared for ways of dealing with potential ethical tension.

2.2 Epistemology and Methodology

The empirical study adopted a task based structure to pupil interviews which shifted the balance away from the written (and sometimes spoken word) to a methodology which focussed on informal discussions and visual

methods. The epistemological considerations behind this methodology were that children have “insider knowledge” and positioning pupils as active participants in the research process, side stepping the traditional power hierarchy of the researcher as an active participant and pupils as passive. At the end of each interview, pupils were offered the chance to review and amend their diamond ranking of chosen photographs, pupil view template or any aspects of the discussion. This allowed pupils to direct the flow and focus of any later discussions and again served to challenge any power imbalance between myself and pupils.

The epistemological positioning also determined, and is made visible, through the empirical studies’ choice of analytical framework - Interpretative Phenomenological Analysis (IPA). IPA, in the empirical study, has epistemic content and its main aim was to explore in detail pupils’ personal lived experience of NGs and how they made sense of that personal experience. Although IPA has as a central concern the exploration of pupils perceptions of the NG and its processes, it is also important to note that IPA recognises the central role of the researcher (myself) in making sense of that personal experience (Palmer, 1969). This meant recognising the differential power relationship between NG pupils and myself within the research (Farrell, 2005) and acknowledging my own power over data analysis- recognising my role in the “co-production of research data” (Mauthner et al., 2002, p54). Smith (1996) represents these ideas as a double hermeneutic- while pupils are trying to make sense of their personal and social experiences, I was also trying to make sense of the pupils trying to make sense of these experiences. Therefore, the analytic account produced was the joint reflection of both pupils and myself (Osborn and Smith, 1998) and the centrality of myself to the analysis and research was acknowledged. Importantly, all interpretations produced were bounded by the pupils’ ability to articulate their thoughts

and experiences (Baillie, Smith, Hewison and Mason, 2000) and my ability to reflect and analyse.

2.3 *Critical Realist Framework*

The research perspective, and in particular the ethical considerations that follow the view of pupils as competent interpreters of their social world, draws on key theoretical assumptions derived from sociology of childhood. This perspective views pupils as active participants of their own worlds (cf. James and Prout, 1997) and competent interpreters of their social worlds. In this way, pupils' experiences of the NG cannot be described as a universal experience, but one that is constructed within specific times, places and contexts. Therefore, a pupil will construct meanings differently at different times and different contexts. The researcher's role is to talk through these different constructions with pupils and understand the context of the differences. These views have particular compatibility with a critical realist position which guides the research question. In attempting to endorse a critical realist framework, the research positions itself as acknowledging the limits set by "reality" (positivism), the meanings pupils make of their NG experiences and also the effects of the wider social context on those meanings (relativism) (Kelly, 2008). A critical realist position presents a middle road perspective between realist and relativist endpoints and in the context of the research question attempts to gain a better understanding of what is really going on for NG pupils with the acknowledgement that the data gathered from the empirical study may not provide direct access to this reality. Similarly, a critical realist approach attempts to understand the mechanisms at work and the contexts in which they operate in order to provide a "theoretical understanding of what is going on which can then be used to optimise the effects of the innovation by appropriate contextual changes, or by finding alternative ways of

countering blocking mechanisms..." (Robson, 2002, p39) The four NG pupils were therefore asked to "make meaning" individually when considering the impact of the NG on their SEB development and consider what aspects of the NG work best, and under what circumstances. For this reason the empirical study's research focus remained open to counteract the assumption that NG pupils will always value the NG experience.

Reflecting on this framework it was important to acknowledge that the research was exploratory in nature and in that respect it was concerned with ascertaining the extent to which pupils are aware of their circumstances (NG and SEBD) and the degree to which they were forming perspectives on these. Following this, I had to accept that all perspectives are subjective and filtered through many lenses (McLeod, 2007), but are still valid to the pupils. This interacts directly with the issue of representation and interpretation of pupils' views and their versions of reality. James (2007) suggests that we must challenge what Geertz (1989) calls "dispersed authorship" that assumes that research carried out with children or by children is an authentic (and hence unproblematic) representation of children's voices. The main point here is that it is the researcher that inevitably presents the views of children as part of the interpretative process. In this way, it was important to note how my own view of the world influenced what was interpreted and later reported. My understanding of NG pupils' experiences was based on my own theories, beliefs and choices which produced one version of the truth (Scott, 2007). In the empirical study, emphasis was given to the perspective of NG pupils (Bryman, 2008) who were asked to make sense of and articulate their experiences. However, it was my role to then make sense (and interpret) pupils' experiences. It was crucially important for myself as researcher to remain aware of my own theories and how these relate to those of NG pupils and that others may interpret findings differently dependent on their

own views of the world. Attending to this idea at an epistemological level, the process of representing pupils' views corresponded to the practice of using direct quotations from pupils to represent their views as "authentically" as possible as well as grounding my own interpretations. However, Alldred (1998) has reminded us that we cannot fully access children's authentic voice which is not independent of the interview context and that when researchers engage in research- it is the children who have to render their selves meaningful in researcher-centred terms.

It is equally important to consider the interpretive framework as it raised a number of issues in relation to the findings; namely, relationships and subjectivity. With regards to the notion of relationships, an inescapable part of the interview process was my own familiarity to all pupils within the context of my professional role as a trainee educational psychologist for the primary school. Many authors would subsequently argue that this introduces a degree of bias in the findings; however, a related argument would be that the pre-established relationship in fact aided the interview process and the rich insights gained from pupils. The overall approach and methodological framework used in the research also inevitably raised questions regarding reliability, validity and generalizability. In this sense, it was important to rehearse that the primary purpose of the empirical study was not to establish the accuracy and reliability of pupils' accounts nor to provide objective accounts of their perspectives (Flowers, Hart and Marriott, 1999). Rather, the research standpoint assumed that pupils sought to interpret their experiences into some form that was understandable to them- a concern with pupils' subjective accounts. However, at the same time the fact that all pupils spoke similarly indicated the strength of the impact of the NG on these pupils and is suggestive of wider applicability. Smith and Osborn (2007) suggest that we can think of "theoretical generalizability" (p530) however it is necessary to take a

holistic view of the empirical study and recognise the importance of the unique context of the NG.

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Empirical Study

“What is the impact of Nurture Groups on social, emotional and behavioural outcomes as perceived by pupils?”

(I.e. How are NGs experienced by pupils to bring about changes in social, emotional and behavioural outcomes? That is, by what steps or common features?)

Kimberley .J. Whitehead

24th September 2012

Abstract

The systematic review provided the rationale for the empirical study by highlighting the theoretical basis for the research. This study focused on Nurture Group (NG) pupils' views which emerged as an interesting and overlooked aspect of previous research. The systematic review supported the adoption of more qualitative research methods as quantitative methods (such as Boxall and SDQ scores) even when tied to longitudinal designs were relatively insensitive to the views and experiences of NG pupils.

The current study adopted IPA to explore pupils' understanding of NG features and their SEB development and experiences related to these features. Semi-structured interviews supported by visual methods were used to investigate the views of four NG pupils (aged between six and nine years). These aimed to explore inductively how NGs were experienced by pupils to bring about SEB changes. Interviews were supplemented by pupil view templates (PVTs) to identify the learning processes NG pupils perceived as associated with different features within the NG. Findings revealed that pupils have strongly held and informative views regarding the processes and features of the NG and the benefits and disadvantages of these in terms of their SEB development. These include the importance of the NG separation from the mainstream class; the continuation of links; and the process of choice. Findings provided a fine grained understanding of the meaning of the experience of NGs for pupils' SEB development that can be used to contextualise existing qualitative research. This was hoped to encourage reappraisal of what is known about NGs whilst stressing the importance of seeking the views of NG pupils and incorporating these views into future research and NG developments.

1. Introduction

1.1 Nurture Groups

NGs have been recommended as an inclusive approach for addressing children's SEB needs within a mainstream school setting (Doyle, 2004; DfEE, 1997). Since early developments, NGs and NG principles and practices (see specifically, Binnie and Allen, 2008) have continued to develop, with the approach now established as a popular and effective method of addressing the SEB needs of vulnerable children in schools across the UK. Seth-Smith et al., (2010) report that a recent survey in 2008 found over 1,000 NGs in the UK in both primary and secondary schools. NGs are now being developed in most Scottish Local Authorities, and have been identified as good practice by Her Majesty's Inspectorate of Education (HMIe, 2009). NGs also sit comfortably within the Scottish national context where the mental, social, emotional and physical health of pupils forms a central part of A Curriculum for Excellence (Scottish Executive, 2004). "Nurture" is also currently viewed as one of the key approaches that the Scottish Government is using to improve behaviour and relationships in schools (Scottish Government Social Research, 2009) through its Positive Behaviour team. The Additional Support for Learning (Scotland) Act (2004) and later 2009 revisions (Scottish Government, 2004; 2009) broadened the definition of additional support needs and provided a much wider catchment area within this term including pupils with SEBD. There also came the recognition that all children may need additional support at some stage regardless of the severity or difficulty, therefore increasing the inclusivity of the term additional support needs. In Scotland, therefore, Local Authorities increasingly run NGs as part of a continuum of provision for children with additional support needs as NGs are viewed as part of a wider early intervention programme.

1.2 Pupils' Views- Legislative Context

The need to provide more opportunities for children and young people to become involved in the design, provision and evaluation of services which they use or which affect them has been a focus of recent government agendas. "Every Child Matters" (DfES, 2003) states that the involvement of children is crucial if services are to be improved and notably a young person's paper was produced for the first time in 2005 (DfES, 2005). Children's participation has a dedicated action plan (DfES 2002a) and is also addressed in the 2002 Education Act (DfES, 2002b) subsumed in a section titled "Consultation with pupils". The Special Educational Needs Code of Practice (DfES, 2001a) emphasises the need to involve young people in decisions that affect their lives. Further, the accompanying SEN toolkit (DfES, 2001b) picks up on the same theme and includes a section of materials which aims to enable pupil participation with reference to statutory assessment, annual reviews and transition planning. In Scotland, the importance of consulting with children has been given further weighting under the Additional Support for Learning (Scotland) Act (2004) and later 2009 revisions (Scottish Government, 2004; 2009). Subsumed under this Act is a duty placed on all local authorities to take the views of children and young people into account when discussing certain aspects of the child's life.

Therefore, the rationale for consulting with pupils is broadening and the political significance of pupils' perspectives is being established. There are other developments relevant to this study including educational research investigating and consulting pupils' about different aspects of their schooling. For instance, Flutter and Ruddock (2004) explored the role pupils as researchers can have in school improvement while Pollard (1996) asked pupils about their experiences of curriculum, assessment

and pedagogy. The term metacognition has been used to describe learners' knowledge of their own cognition and their thinking about their learning. Georghiades (2004) described metacognition as an important feature of learning which develops an awareness of the process of learning and self-regulatory skills (Pintrich, 2000). With the exception of McCallum et al., (2000), Wall and Higgins (2006) maintain that few studies have explicitly looked at learning and the associated metacognitive processes. Similarly, this pattern of findings is replicated within NG research, as to date, there is no research which has explicitly asked pupils about their learning (social, emotional and behavioural) and the role that certain features play in this process.

1.3 Nurture Groups and Pupil Participation

While there is some existing NG research which has directly considered the views of pupils (e.g. Sanders, 2007; Cooper et al., 2001) these studies have acknowledged limitations and difficulties in accessing pupils' perceptions in a reliable manner. For instance, Cooper et al., (2001) presented interim findings where pupils' perceptions were accessed using face to face informant style interviews. Despite the fact that at the time of publication the authors had yet to collect and analyse all of the data, difficulties were noted in the extent to which young children had understood what was required of them in the interview situation with many pupils providing what appeared to be "guarded answers" (2001, p 164) in an attempt to remain loyal to their teachers and schools.

Other NG studies have not directly sought the views of NG pupils and have either relied on staff and parent perceptions through questionnaires (e.g. Binnie and Allen, 2008; Newman, Woodcock and Dunham, 2007), observation of NG pupils (Newman et al., ibid) or used other means of evaluating children (e.g. weekly diaries- Scott and Lee, 2009). It is clear

that NG pupils' views have not been routinely sought and to date there has been no research undertaken with NG pupils to elicit their perspectives. This study aims to address this gap by exploring inductively how NGs are experienced by pupils to bring about SEB changes.

2. Research Study

Few studies have based their rationale on the specific aim of listening to NG pupils regarding their views on the processes and features of NGs and none to date have used participatory methods in an attempt to understand how and why specific NG features relate to SEBD development. It has not been common for researchers to ask pupils "how" they feel NGs have impacted on their experiences and the central focus tends not to have been on the "lived experiences" of NG pupils. In line with recent developments and interest in pupils' voice and participation (Clark, 2005), it was timely to explore how the learning environment and features of NGs are experienced by NG pupils.

The practice context of the Local Authority shaped the research focus. In September 2010, NGs were established on a pilot basis in four primary schools. This initiative was aligned to the broad strategic priorities of A Curriculum for Excellence (Scottish Executive, 2004), Getting it Right for Every Child (Scottish Government, 2007) and the Early Years Framework (Scottish Government, 2008). A NG network was established in June 2010 with members drawn from the four pilot schools and the Educational Psychology Service. An evaluation of the NG pilot had always been envisaged as one of the roles of the Educational Psychology Service, the main function to focus on the processes of implementation; to gauge the effectiveness of the NGs on pupil outcomes; and to support future

implementation by providing feedback to schools. It was also intended that the evaluation would contribute to a collective and developing understanding of NGs in the Local Authority. Due to the present study straddling these localised and national developments, the focus was on the views of NG pupils from one of the pilot NGs.

2.1 Aims of Study

The central aim was to explore and attempt to understand from pupils' perspectives, the features of NGs that are regarded as significant to pupils' SEB development. This research hopefully adds to the growing body of NG literature in two ways. First, the task based framework to pupil interviews was designed to capture the varied experiences of pupils in the hope of contributing relevant knowledge and viewpoints about how NGs are currently used and perceived by pupils. Secondly, the research was novel with its focus on pupils' experiences, and was original in its use of pupil view templates (PVTs) (Wall, Higgins and Packard, 2007) to gather pupils' beliefs about their metacognition. It was anticipated that the methodological framework used would raise questions to those researching the views of NG pupils (i.e. changing understanding of the involvement of pupils in NG research) and establish a firmer foothold for the use of Interpretative Phenomenological Analysis (IPA) and Pupil View Templates (PVTs).

3. Method

The research methodology was built upon the epistemological assumption underpinning the research project. In developing the methodology

particular attention was given to the fact that tasks were both multi-method in order to recognise the different voices of pupils as well as participatory in order to treat pupils as experts and agents in their own experiences (Christensen and James, 2000; Clark, 2005).

3.1 Selection of Tasks

Semi-structured interviews were based on three different tasks in an attempt to reduce the problems of an unequal power relationship between myself (as researcher) and pupils (Punch, 2002) as well as encouraging pupils to become familiar and comfortable with me (Boyden and Ennew, 1997). I aimed to be explicitly attentive to the commitment of pupil engagement and understanding of the research process (Alderson, 2001) by providing flexibility in the way questions were asked and allowing pupils to demonstrate their competence. All activities were supported by visual aids (either photographs or art based activities) which allowed pupils to express ideas, feelings and any sensitive issues rather than the reliance to convey feelings verbally (James et al., 1998). This was a deliberate decision in order to ensure all methods were as participatory as possible and that pupils' age and stage of development did not act as a barrier to meaningful participation (Kirby, 1999). Despite the art activities and visual supports appearing fun and spontaneous there was a clear structure (three stages) to the interview process in order that they were not experienced as chaotic to pupils.

3.1.1 Photo Elicitation

At the first stage, a number of photographs of the distinctive features of the NG were examined. The photographs chosen were informed by personal experience of the NG as well as consultation with NG staff. In

accord with Morrow (2001), a selection of over 40 photographs were used to explore what pupils “see” but also to explore their underlying meanings of the NG. Pupils were asked to talk as widely as possible about their experiences and perceptions of the NG. Although not intended as such, this activity acted as a warm-up exercise with the opportunity for both myself and pupils to interact and discuss some of the photographs (cf. Irwin and Johnston 2005) and how some of the features were perceived as related to their SEB development in their own words. The activity was highly individualised for each pupil, depending on individual needs and preferences during the interview (cf. Clark, McQuail and Moss, 2003).

3.1.2 Diamond Ranking

The second activity- diamond ranking- followed immediately from the photo elicitation. Here, pupils were asked to place cards (representing key features and aspects of the NG) in an array ranging in the importance of how NG pupils felt each feature had aided their SEB development (Rockett and Percival, 2002). The first part of the task involved pupils discussing which of the subset of nine photographs were particularly significant in developing their SEB skills and then placing these on a large A3 sheet in a diamond shape, ranked so that pupil’s preferred photograph is at the top and so on (Figure 3).

3.1.3 Pupil View Templates (PVTs)

The third activity used PVTs (Wall et al., 2006, 2007) in order to capture the elements of reflection on learning and metacognition. In particular, these were designed to promote pupils’ thinking about both the internal elements (what pupils think they have learnt; what skills they have achieved; and how they have achieved their goals) and the external

elements (what pupils think the benefits are more generally and what they would tell other pupils about the NG). PVTs were adapted and further customised within this research to incorporate the different learning and activities that were associated with the NG features of enhancing SEB development (Figure 2). Pupils were offered the choice of selecting a previous photograph, drawing a picture or illustrating with words or symbols to express their thinking. This photograph; picture or words then provided a child-centred framework to enable pupils to describe and talk about their experiences. By providing this image of the learning situation this promoted a three-way interaction between myself as researcher, the pupil and the PVT. The resulting template then formed the basis (scaffold) to a mediated interview and operated as a reminder of the learning context for pupils and a stimulus. The PVTs were either annotated by each pupil amidst discussion or I acted as a scribe for those pupils who were not comfortable in writing down their ideas in the appropriate bubble. This resembled a “draw and write” technique (for example, Di Gallo, 2001; Gibson et al., 2005) where written labels or features were added to highlight meanings during the interview and even afterwards in discussion with pupils. To increase support for pupils completing the templates, prompts for discussion were devised from a list of example prompts provided by Wall et al., (2007) (Appendix K). These allowed the consistent use of PVTs across interviews and meant that individual responses could be compared with other pupils. However, it should be noted that the prompts acted as a guide as the intention was to create and explore pupils’ views of NG features and as such I was adaptable to the needs of each pupil and interview situation.

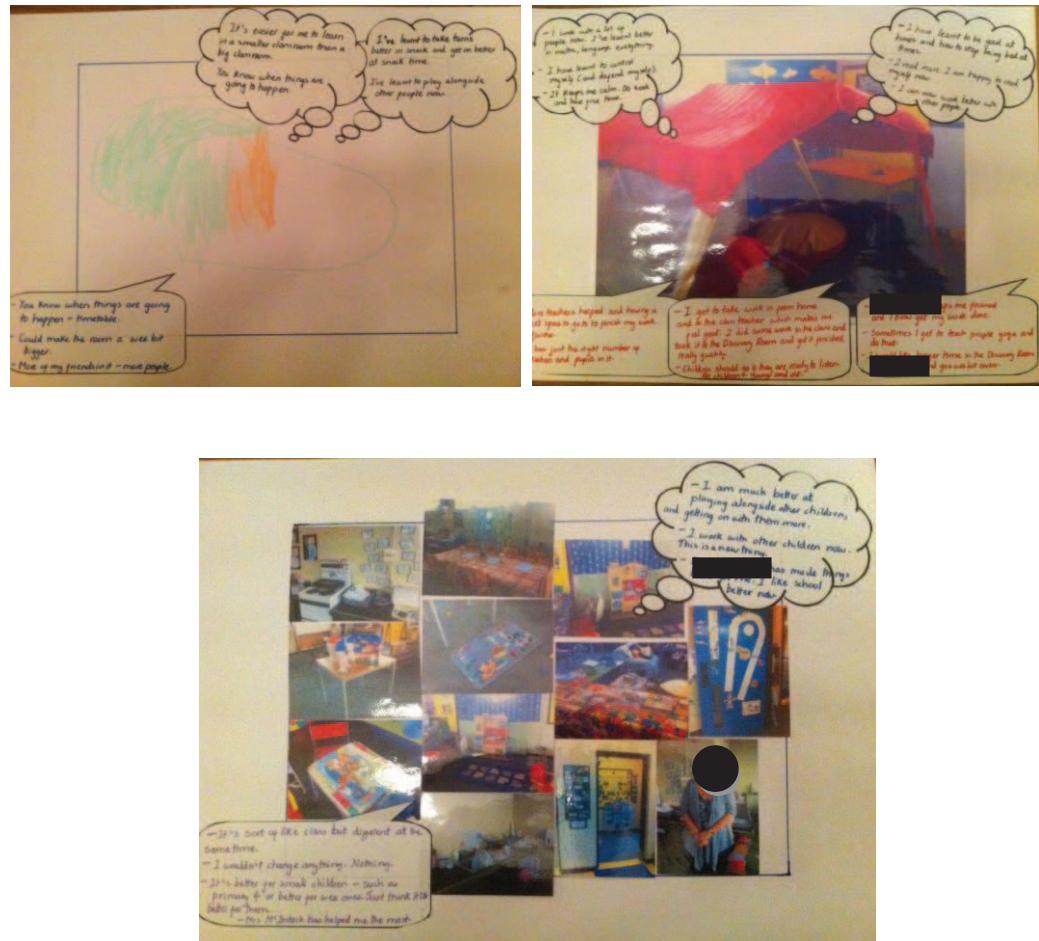


Figure 2: Example of three completed PVTs. Features of NGs for improving pupils' SEB outcomes (retaining structure of speech and thought bubbles).

3.2 *Participants*

Participants represented a homogenous, purposive sample (Smith and Osborn, 2003) from one mainstream primary school. This school was included in a NG pilot within the local authority and was currently in its second year. Pupils were aged between six and nine years old (primary three to primary five) and had been accessing the NG for one school year on a part time basis (four mornings a week). Four pupils took part in the interviews- three boys and one girl. All pupils were either in the process of

re-integration back to their mainstream classes on a full time basis or had already returned to their mainstream class. Therefore, the NG experience for the four pupils could be initially interpreted as a success. Informed consent was granted by all pupils and their parents or carers and pupils' names along with any identifying information were altered. In keeping with an idiographic approach, but to preserve anonymity, pseudonyms were used. The interview process involved awareness of the effect of the interview on NG pupils to ensure they were not distressed (see bridging document).

3.3 Procedure and Interviews

All three tasks were recorded by audio tapes and notes were kept of comments made by pupils - e.g. sorting activity for the diamond ranking activity and discussions during the completion of PVTs so that all topics or issues covered (although not perhaps recorded on the PVTs) were captured. An inductive approach was adopted, and the content of each interview followed the pupils through their own accounts of the NG. This took the form of reflecting and probing for the first two activities. For example, "Can you tell me a little more about what you mean?" This allowed rich, detailed information and provided a more insightful sense of how pupils thought about NGs. The context of the interviews differed depending on the requests and personal preferences of pupils and were completed in a quiet room away from the NG.

4. Analysis

The aim of the research was to explore inductively how NGs are experienced by pupils to bring about SEB changes and how they made sense of their experiences. The aim was congruent with a phenomenological view of human experience. Transcripts for each pupil were analysed for recurrent themes using Interpretative Phenomenological analysis (IPA). IPA has been used to address sensitive and under-explored topics where its participant-lead focus facilitates the emergence of novel and useful insights. In IPA, the final analytic account aims to reflect the shared understandings of the experience in question (NGs), whilst also giving some sense of individual variation (particular individual experiences).

IPA was also chosen for a number of different reasons. Firstly, IPA was adopted due to its focus on seeking to explore the links between what participants say within interviews and the way they think about their own experiences. Larkin et al., (2006) refer to this notion as the complementary commitment of IPA as understanding and “giving voice” to the concerns of participants and the requirement to contextualise and “make sense” of these claims from a psychological perspective. IPA takes as its starting point a position in which the participant is the expert (Smith et al., 2009) and not the researcher- a view congruent to the epistemological view underpinning the rationale for the research. Secondly, IPA is useful where the topic under study is dynamic, contextual and relatively under-researched and where issues of sense making are important (Smith, 2004). By focusing more in depth on the specific experiences of SEB development for NG pupils this study builds upon the small number of published qualitative studies to date. IPA prioritises the role of individual beliefs and experiences of NGs and helps to describe and understand the

pupils' accounts of the processes by which they make sense of their experiences.

A strong argument has been made for presenting IPA analysis with different methods in a combined way. Flowers et al., (2001) presented focus group and interview data in a combined analysis and whilst acknowledging that mixing of data is potentially problematic they maintained that with their specific research populations and particular dynamics of groups, a “synergistic effect” (p669) was produced, adding value to the analysis. Smith (2004) also points out that it is important not to be exclusionary about the use of semi-structured interviews and that although semi-structured interviews are consonant with the commitment to detailed exploration of personal experience, other methods may provide important sources for the analysis. This study trialled PVTs as a suitable and related approach for IPA analysis and attempts to establish group (core constructs) as well as idiographic accounts (individual detail and intimacy). The use of PVTs and the diamond rank activity in combination with interviews helped to minimise researcher bias in the selection of themes by checking interpretation before a thematic framework was agreed. The use of individual quotes, then, allowed the merging of individual data with the interactive context of the group data. In this way, IPA's idiographic commitment was upheld by combining the diamond rank activity and PVT data, whilst the data presentation of verbatim extracts explicitly grounded pupils' experiences in the contextual, relational aspect of their experiences. This represents “grounding in example” (Elliot, 1992, p30) which acts as an alternative criterion allowing the reader to make his or her own assessment of the interpretation made.

Analysis was structured around the process of Smith et al., (2009) presented in Appendix L to enhance clarity and replicability. This involved

interpretative engagement with the text (Smith, 1996) although capturing the meaning of NGs to participants was central. To ensure quality and scientific rigour various strategies recommended by Henwood and Pidgeon (1992) and Yardley (2000) were employed including research supervision, use of a reflexive research diary and an audit trail to trace development of the analysis from transcripts to final presentation of themes (Appendix M). The presented analysis focused on four superordinate themes and nine subthemes (with one superordinate theme presented in Appendix O due to word constraints). All themes are listed in Appendix N followed by a narrative account, including supporting quotes. Themes were not selected only on the basis of prevalence and other factors including the articulacy and the manner in which each theme assists in the explanation of other aspects of pupils' accounts were considered (Smith et al., 1999).

4.1 Superordinate theme: similarity/difference (with mainstream)

4.1.1 Theme: structures

Overall, pupils reported an ongoing sense of the difference between features and experiences of the NG and those of their mainstream primary class, all of which related to pupils' perceived improvements in SEBD. However, this sense of difference was almost complicated by the related theme of a continuation of links between NG, home and school. It appears, therefore, that a sense of separation and disconnect from the mainstream class was related to pupils' perspectives of improvements in SEB skills as long as continuity was preserved to some degree. Pupil E.S's succinct quote captures much of this idea:

I: So, why would you tell another pupil to go to the NG?

E.S: *It's nice. You get to play, you get to do work, and, er...have snack. You get to play on the white board as well so it's sort of like the class, but different at the same time.*

The polarity within this theme (pupil E.S's desire for compatibility and a degree of separation from the mainstream class) was reflected across all interviews. More interestingly, pupil Z.M's straight-forward account alludes to the fact that the dissonance between a desire for compatibility and a desire for a different experience can be met at the level of features and processes within the NG. For example, pupil Z.M describes how a central feature of the NG (snack time) can signal not just a social experience but also the distinctiveness of the NG:

Z.M: *That! [pointing to the photograph of the snack table and placing it next to the diamond rank activity] Snack...because I like eating and working there. It's good that you can work there as well because it gives you your own space.*

I: *Is that good?*

Z.M: *Yes, because sometimes I need that and you can't always get that in the classroom.*

This focus upon the separation of the NG and improvements in SEBD at the level of individual structures continued in his account:

Template question (speech bubble): What are the practical things that you think have helped you in the NG and how could these be improved?

Z.M: *More teachers has helped me and having a quiet space to go to which has helped me finish my work a lot quicker than usual. I need quiet space to finish my work and being in class is difficult*

for this. It also lets me go somewhere to calm down- the tent. I can practice my yoga there. You can't do that in class.

4.1.2 Theme: social experiences

The process of comparison between what the NG offered in terms of SEB development and what pupils perceived the mainstream environment as offering was suggestive of certain distinctive features. Generally, all pupils' alluded to certain features that were vital to SEB development, but which appeared to be unique to the NG. For pupil C.C the feature of "doing the dishes" represented a psychological aspect of his SEB development and arguably a sense of increased self-esteem, although not articulated exactly as that:

- I: *The dishes! Do you really like the dishes that much?*
- C.C: *Yes.*
- I: *So, why do you like them that much?*
- C.C: *Because I am confident doing them and I know exactly what I am doing. I am good at the dishes and I wash and dry them. Somebody dries them and somebody washes them.*
- I: *Wow. That's great! I wish you could come to my house and do my dishes [all laughing]*
- C.C: *We all work together on the dishes.*

This account touched on the social context of the NGs, and pupil C.C seemed to strengthen his like for the dishes by considering the social interaction opportunities this offered. Consequently, although pupil Z.M in a previous account reported the benefit certain features in the NG offered in terms of isolation, implicit in other pupils' accounts was the idea of features encouraging social interaction.

For pupil C.C:

- I: *And you mentioned that you had a car at home as well?*
- C.C: *That's why I like playing with them in the NG, and, er... I like snack*
- I: *Oh snack! What's that about then?*
- C.C: *It's snack. You have snack. And it's yummy and I like sitting at the table because, it's, erm..., I like sitting with other children. You learn to take turns and stuff.*

Similarly, in a quote from pupil E.S;

- I: *So, what do you call this area?*
- E.S: *Snack area. We get a mat and then we sit when it is ready. And then we eat, and we get drinks.*
- I: *So, who makes snack?*
- E.S: *Well, half of the children make it. Well, there's a thing that tells you, well...well, a thing... and maybe it would be my turn. So we do it together.*
- I: *Oh, that's good, so everyone helps out at snack?*
- E.S: *No, you follow the thingy on the wall, but we all sit round the table and can't start until everyone is ready. Snack is one of my favourites.*

An interesting example of linguistic interpretation were the ways in which pupils referred to themselves and engagement in activities as “we”, rather than “I” which suggested a sense of belonging to a collective group. This theme showed that pupils felt their SEB experiences were shaped by certain perceptions which represented both a continuation and a disparity with the mainstream environment. Identifying with improvements in self-

esteem and social skills was the importance of specific NG features. Indeed, in the diamond rank activities the features of snack time, the tent; quiet space; cooking and dishes featured in all pupils' explanations (Figure 3).



Figure 3: An example of one completed Diamond Rank Activity. Processes/features for improving SEB outcomes.

4.1.3 Theme: separation

This theme showed how possible changes to pupils' SEBD were attributed to certain features which both facilitated this development whilst also having a concomitant function in allowing a degree of distance from the social context. The interviews showed that certain features carried this dual purpose which was also dependent on pupils' own construction and re-conceptualisation. Crucially, this sense of separation was apparent in the ways that pupils described both the location and function of the NG. The experience of "separation" reported by NG pupils is a core feature in NG literature. Both Bishop and Swain (2000a) and Newman et al., (2007)

refer to the importance placed on the NG as representing a safe space for NG pupils. For example, there was a clear dialogue in E.S's account that the NG should provide a degree of separation in terms of being somewhere that she could go to that was different from the normal classroom:

Template question (image bubble): What did you learn about your emotions?

E.S: I get to take work from the classroom to the NG which makes me feel good. I can take work to the NG and get it finished much more quickly. I always feel more relaxed in the NG as it is away from the classroom and the things that you do there are different there. Walking to the NG after lunch each day is good because you are in school, but the NG doesn't feel like school and its miles away from the classroom. That makes me feel happy- I like after lunch time each day.

Newman et al., (2007) also considered the location of NGs as an important factor, and presented a tension between the “centrality of the room- in conjunction with its separation” (p433) which ensured its prominence and also separation from the whole school. The same authors introduce the complex interplay of the symbolic relevance to the NG pupils- the importance of the NG being viewed as part of the school, whilst at the same time providing a space away from the school. Cooper et al., (2001) also report the views of NG children and asked them to comment on what they found most valuable. One reoccurring theme was reference to the quietness and calmness of the NG environment. These findings are consistent with those of Bishop and Swain (2000) where two ex-NG pupils commented on the positive impact of the quietness of the NG. In this study the use of PVTs allowed NG pupils to shed light on why the separation

was beneficial to their SEBD and to explore the meaning they gave to this regarding the location of the NG. The simplest expression of this was the view that the NG allowed pupils to feel calm and less anxious. However, there is a sharp distinction between pupils' perceptions and experiences of the NG location and the salience of this for SEB development to current developments of a whole school nurturing approach (cf. O'Connor and Colwell, 2002; Binnie and Allen, 2008).

4.2 Superordinate theme: Process of Choice

4.2.1 Theme: choice in comparison with mainstream

A contextual factor that appeared to influence all pupils' experiences was an increased sense of personal agency. This attributed to positive behaviours both at school and at home:

I: So you get a choice?

E.S: Yeah. And that's a picture of all the games. And that's where you play [pointing to photographs]

I: So why do you think you got a choice then?

E.S: We always got a choice because we had learnt to behave better

I: Oh, so what does that mean then? More of a choice than normal classroom?

E.S: Aye¹, you always got to choose after you completed each job. And you don't get upset now because you know you will always get a choice in the end. I used to get annoyed if I didn't get a choice in class because I couldn't finish my work in time. Now, I always finish my work, so I always get a choice.

I: What else is good about a choice then?

E.S: Because it's up to you...I always pick the dollies and the puppets.

Pupil C.C described choice as filtering all aspects of his NG experience and at home, serving to strengthen his SEB development. This was in terms of fostering his own self-awareness and self-regulation when some choices became unavailable:

- C.C: *Mum and dad have started to give me choices at home as well.*
I: *What kind of things would you get to choose?*
C.C: *I get to make my own choices at breakfast time. There is cereal and toast. And I get to choose what to have and to drink...and if I can't do something because, say, it's chucking³ it down then I get to choose something else from my chart rather than getting upset and going in a huff.*
I: *You! Going in a huff, I don't believe it!*
C.C: *Not now, but I used to because I felt as if stuff was getting taken away from me and I didn't used to get choice in my class because I was a slow learner but now I am a fast learner. Well, [pause], not fast, but [turned and looked at me], a..., a..., I'm in the middle kind of learner now so I get a choice.*

In this quotation there is a strong resonance with NG literature where increased sense of ownership promoted a sense of belonging and input into NG experiences (Newman et al., 2007). However, it also appears that this recognition of choice is conceptualised by pupils as associated with their own development in learning and in their ability to handle this choice. This sharply contrasts with NG pupils' expression of choice not being afforded to them in the mainstream class which they perceived as related to their ability as a learner. Conversely, this new experience of choice has a clear link with increased self-esteem as pupil C.C now describes himself as a "middle kind of learner" as well as a vehicle to help regulate emotions. Pupil involvement is a common feature in the extant literature.

For example, Cooper and Tiknaz (2005) contrasts the co-construction and transactional approach in NGs with the reactive, directive approach of mainstream class teaching approaches. Similarly, Cooper and Lovey (1999) reflect that the NG ethos highlighted the discrepancy between a therapeutic approach of the NG and the control focus that dominates conventional approaches to emotional and behavioural difficulties.

4.2.2 Theme: relationship with NG staff

Against this backdrop of increased choice and ownership, all pupils highlighted a different relationship with key school staff. This relationship appeared to flavour the whole NG experience in terms of interactions with other people and individual SEB development. Like all pupils in this research, pupil Z.M described how he felt his listening and communication skills improved by referring to the comparison between his relationship with NG and mainstream staff:

- Z.M: *And that's Mrs M (NG teacher) [pointing and lifting up photograph]*
- I: *Oh, that was quick. Can you tell me about Mrs M? What is she like?*
- Z.M: *[laughing], well...she's lovely. She's just different. She helps you with work things but also with other things as she takes her time with you and you feel comfortable to talk to her.*
- I: *Comfortable? So would you not feel comfortable in talking to your class teacher?*
- Z.M: *Yes and No. It's very different. Its trust and other stuff as well. She would take more time than the class teacher would, and she talks to you different.*
- I: *Different?*

Z.M: *She doesn't tell you what to do. She talks things through with you and helps you to understand more than you see how to talk things through with other people. She will tell you off if she has too, but it's different because you see it coming.*

As in the above quotation, it is clear that pupils interpreted the different relationship with NG staff as having a significant impact on their SEB development, most specifically, an improvement in communication and listening skills. Linguistically, all pupils seemed to have greater fluency when talking about the relationship with NG staff which suggests a powerful influence of staff in terms of building trust and taking time with pupils. It also appears that NG pupils' experience of SEB improvements was influenced by the role models that NG staff provided as well as their prior experience of teaching relationships.

4.3 Superordinate theme: Barriers

4.3.1 Theme: group dynamic

Throughout all interviews, pupils described very specific barriers related to their SEB development. The most frequently reported experiences included: difficulties experienced with NG composition and continuity with the mainstream class.

There is no doubt that the most frequently reported experience of a potential barrier to pupils SEB development was NG composition. It was clear that NG pupils had a strong insight into their own SEB development and a strong sense of how certain peer relationships could either help or hinder this development. This personal understanding of what type of pupils would benefit from the NG was presented by pupil Z.M alongside

his frustration at what he felt was currently a barrier to his own communication and relationships:

Pupil view template (speech bubble): Who do you think would benefit from the NG? Why? How?

Z.M: *Everyone would. All children- older and younger. But only children that are ready to listen will get something out of it. Children that are ready to listen and to do a little work.*

And later;

I: *So do you go into this area a lot?*

Z.M: *No because, B.K (pupil's name) goes in there a lot and my behaviour is bad with him because I don't get on with him. I have good and bad behaviour. I have learnt to be good at times and bad at times – because of B.K. I don't learn as good when he is in the NG because he gets rowed at all the time and always goes to the activities that I want to go on so I just stay away.*

I: *But is that not you learning all the time as well? Are you not learning how to handle your feelings and frustrations by going to different activities and staying away from people you might not get on with? Is that not learning? I think it is very mature!*

Z.M: *It's not learning, no. Because he stops me learning things some days 'cause₄ he always shouting or throwing books or sent on the computer to keep quiet and then others can't go on the computer. He stops my learning and stops me learning with some pupils 'cause₄ he tries and steals them away from me.*

Z.M's frustration with one particular pupil is clear and seemed to conceptualise certain group dynamics as being counteractive to accessing

certain learning experiences as well as certain interactions with other pupils. Consequently, Z.M described his behaviour as “bad at times” and his own perception suggests the strong link between pupil dynamics and his own behaviour. When asked to describe further how his conduct changed in the NG dependent on particular pupils, Z.M struggled to articulate his thoughts and indicated “I don’t know, I just respond to him and react in bad ways.” Pupil Z.M’s powerful use of language (bad behaviour; stops me learning) is also reflected in his frustration with other NG pupils which appeared to prevent or suspend aspects of his SEB development. The precise group dynamic of the NG was interpreted by other pupils as a barrier to certain interactions;

E.S: Miss T (NG staff) has helped me the most. I have learnt lots and lots because of her help.

I: Oh, that was convincing. That’s great, isn’t it?

E.S: Yes, but sometimes you can’t always work with her as she is busy with the naughty pupils.

I: Naughty pupils?

E.S: She has to spend most of her time with the naughty children so I don’t work with her all the time because I am not naughty.

Although all pupils emphasised the importance of the key relationship with the NG teacher to be an important factor in their SEB development, similarly, the loss or decrease of this key relationship is interpreted as important in terms of diminishing levels of support and expectations of support not being met. However, pupils’ perceptions appeared to focus on the functional aspects of lack of access to resources and inconsistent access to certain pupils, and in consequence to staff members. This perception also represented a sense of frustration and “loss” in confidence in what the NG and NG staff can provide. In this context, although pupils

noted that certain NG dynamics were detrimental to their SEB development; pupils struggled to explain “how” a different NG dynamic would have explicitly facilitated this. I conceptualised this difficulty as uncertainty and confusion on the part of pupils who found it difficult to articulate their thoughts. For instance, despite repeated prompting and my own suggestion to pupil Z.M that his own self-awareness had developed as he is now more aware of certain unhelpful relationships in the NG and has consequently learnt to manage these feelings by going to different areas of the NG, pupil Z.M remained adamant that this was “not learning, no” and repeatedly used vocabulary such as “stops me learning” and “steals” to express his own frustration. In contrast, I conceptualised similar views from pupils as a difficulty in explicitly linking some aspects of SEB development to group dynamics whilst being careful not to underestimate the salience of this factor for pupils.

The extant literature resonates with group dynamics providing a barrier to SEB development. Cooper and Tiknaz (2005) highlighted that NG teachers perceived a “balanced group” composition to be a salient factor for the successful functioning of the NG and for teachers the greatest threat to group balance was the inclusion of too many pupils with externalising behavioural problems. In line with present findings, Cooper et al (ibid) draw two main implications from an imbalance in NGs. First, this imbalance may delay the implementation of a nurturing approach, and second, the needs of the most vulnerable pupils are difficult to meet. Cooke, Yeomans and Parker (2008) similarly emphasised the importance of a mix of pupils in NGs- not just those who cause the most serious behavioural concerns.

5. Discussion

5.1 Strengths and Limitations

The themes presented touched on constructs described by other NG authors; however, the use of semi-structured interviews and PVTs allowed a nuanced extension of existing literature. A particular strength of the study was its use of participatory methods to secure pupils' participation and which was successful in bridging the gap between listening to pupils and how they learn (metacognitive talk). The customised PVTs added value to both pupils' understanding of their learning in the NG while also simultaneously supporting research into the features of NGs. The PVTs allowed important insights into learning in the NG to be explored which extended beyond the NG environment and the findings from previous studies as they prompted consideration of both what features of NG are important, but also, how these features are important to SEBD development. For example, the notion of the NG being a separate entity (separate space) has been widely reported as a core theme in the literature (Newman et al., 2007; Cooper et al., 2001). However in this study, NG pupils shed light on what this separation means in terms of their SEB development. Also, pupils' narratives were imbued with the notion of positive gains in SEB skills, attributed to certain NG processes and features. Pupils not only described and theorized how particular features aided their SEB development they also described how certain features are influenced by the social context of the NG. Previous NG research has been able to suggest what is happening in the NG context, but it was necessary to use a range of participatory methods to understand, in addition, where, how and to what extent things occur and begin to suggest why.

Nevertheless, the research highlighted a number of ethical dilemmas when attempting to access pupils' perceptions of the NG and their SEBD development. On particular interview stressed the sensitivities involved when balancing the need to obtain information from pupils with the need to protect and maintain pupils' confidentiality in interviews and sensitivity to the context in which the research was being carried out. The particular situation involved one pupil who used the interview as an opportunity to describe in detail what he perceived to be one of the boundaries to his SEBD development- group dynamic. However, as the interview progressed it became clear that the interview was being used as a mechanism to talk about another pupil with whom this pupil had a personal conflict. As the negative opinions and views about this pupil infused the majority of the interview, and as both pupils were known to myself as the link Educational Psychologist for the school, I ultimately made a decision based on my previous relationship with both pupils and my judgement of the particular situation. At this point a decision was made to continue with the interview (allowing the pupil to talk through his personal experiences); however this interview did not constitute part of the final analysis. This decision could be interpreted as silencing the voice of the pupil interviewed; however a judgement was made on my ethical obligations to the other pupil. This idea resonates with what Brinkman (2007) names the blurring in practice of the epistemic goodness (the goodness in producing knowledge) and ethical goodness. For myself, there were issues around the balance of protecting pupils' privacy during the interviews and using interview data that could potentially be viewed as harmful to group of already vulnerable pupils. This particular situation highlighted my own need to be aware of contextual issues in research with pupils and to consider any influencing factors as well as highlighting the importance of spending time with pupils discussing confidentiality and its boundaries as well as identifying what constitutes harm to all potential participants.

The research was based in one primary school in the South West of Scotland which brings forth issues of generalisability. The primary school had been involved in a two year NG pilot and at the time of the research was currently commencing its second year. Therefore, the NG could be perceived at an early stage of development, and enthusiasm amongst staff was high. In addition, the pupils selected for interviews were either in the process of re-integration back to their mainstream classes on a full-time basis or had already returned to their mainstream class. One aim of the research was to amplify the voice of NG pupils and provide pupils the opportunity to share their experiences of the NG. The selection of pupils could be viewed as unrepresentative and hence the sample of pupils as biased due to the fact that the very nature of the pupils' re-integration and positive NG experiences may in fact have prevented a diversity of opinions and the views of pupils who may not have had a similar positive experience. In addition, due to certain ethical dilemmas experienced throughout the research, some interviews were not used in the final analysis, thereby reducing the sample of pupils' views. The smaller sample size again raised issues regarding the generalisability of findings to other schools or settings; however, this kind of reliability was not the aim of the study. Instead, the focus was on the richness and depth of information provided by pupils.

5.2 PVTs and IPA

The current study further adapted PVTs for use in NGs where pupils could either draw or select a photograph and then use the bubble structure to reflect on what they have learned and achieved in SEB skills. Although Wall et al., (2007) maintain that future research is required into PVTs to establish their reliability as a research tool; this study has nevertheless highlighted multiple benefits for both the use of PVTs facilitating pupil

participation but also for using PVTs with pupils who have additional support needs in terms of SEBD. Used in this way PVTs could be a useful tool to help inform teachers, NG staff and pupils about thinking and learning in the NG context. The PVTs also allowed data (as short phrases or sentences) that could be amenable for both qualitative and quantitative analysis. For this reason, future research could utilise a more extensive and systematic approach to PVTs within NGs with a degree of adaptation. Wall et al (ibid) also found that PVTs had a significant role in empowering not only students but also staff as learners. There is scope, then, to use PVTs as a guiding tool in staff development and consultations and for NG cross-project analysis.

The use of IPA with the diamond rank activity and PVTs can be described as exploratory as applied in this study; however, as noted by Brocki and Wearden (2006), IPA analytic techniques are beginning to be combined with a variety of different data collection methods and data types. Collins and Nicolson (2002) argue that the use of IPA in some ways dilute individuals accounts through the search for connections, similarities and divergences across participants texts. However, in this study, IPA focused on transferability from pupil to pupil and also allowed discrepancies between pupils' constructions of the same NG features to be highlighted. This allowed the "unique nature of each participant's experience (to) re-emerge" (Smith et al., 1999, p235). It was revealing that when certain structures were discussed amongst pupils, it was entirely possible for the same photograph to suggest different ideas to different pupils. For example, the photograph of the tent (with a desk positioned beside this area) provoked comments which ranged from an interpretation of a supportive structure that aided the completion of work to a place where those pupils that mis-behaved were sent to:

B.N: That's the table, and that's the tent, but I don't know what they are? [pointing to additional toys in the background of the photograph] Sometimes I go to the tent when I am happy and even when I am sleepy....and next to the tent is a table.

I: So would you go to this area if you were tired?

B.N: Sleepy and pretending.

I: Oh!

B.N: And I would go in myself. And the table is where you did your work if you need quiet to concentrate. But I could always think in the NG, so I never went to the table.

This contrasted sharply with pupil E.S's experience- offering a different perspective and hence a more complete understanding of the complex functioning of the NG and impact on SEB development:

I: So, you said this was the tent area?

E.S: Yes, but it's the bad area as well.

I: The bad area? That there [pointing to the desk next to the tent]

E.S: If you are really bad, then you have to go there and work in that area. I've never been in there.

I: I didn't think you would have if it's the bad area [laughing and smiling] So what makes it the bad area? So what does "bad" mean, what type of things?

E.S: Being naughty

I: Like what kind of things would you do to be naughty?

E.S: I don't know.

I: Because you weren't ever naughty!

E.S: [laughing]

I: But sometimes the other children would go there if they were...?

E.S: Naughty! [shouting] If they were naughty they would sit there. Because I've seen them being naughty when I was filling up my water bottle sometimes.

5.3 Next Steps: Further Research

From the strengths and difficulties identified from the study, a number of recommendations and implications can be made for policy and practice of NGs. There are also implications for teachers, school staff, other education professionals, researchers and policy makers who may be considering NGs in their own establishments or looking into the examination of the effectiveness of NGs and issue of implementation.

Firstly, there are opportunities for teachers and school staff to collaborate with Educational Psychologists and with researchers working with NGs to design and implement ways to evaluate NGs which need to actively include NG pupils. Following Todd (2003a, b) it is argued that inviting pupils' perspectives can offer valuable insights into interventions and help to secure positive outcomes. Noble (2003) also argues asking pupils their views needs to be more than ends in themselves. In contrast to UK legislation through the Special Education Needs Code of Practice (DfES, 2001a), the individual detail of NG pupils' accounts is not evident in existing literature. It is of particular importance that policy makers and practitioners are clear about the rationale of seeking NG pupils' views and that there is a neighbouring commitment to implement any findings. Core principles can be derived from NG pupils' experiences and meanings which are arguably as applicable to the everyday planning and evaluation of NG services. This will hopefully lead to improvements in the depth and quality of NG processes and structures and provide opportunities for

practitioners to reflect on current NG practice in light of feedback from their main stakeholders- the pupils themselves. The findings from the research recommend and highlight that pupils views and experiences should be considered as a valuable resource for the development of NGs. These views will be valuable in determining relevant and appropriate data collection methods and tools, and in determining what the outcome measures should be.

Educational Psychology is well placed to start to address the gap that exists in terms of facilitating NG pupils in developing a better understanding of their unique NG experiences and SEB development. The role of Educational Psychologists in relation to NGs and gathering pupils' views is pivotal as Educational Psychologists theoretical knowledge will be useful in consulting with school staff and NG pupils. There are also implications for practice in Educational Psychology in terms of systemic working at the level of the local Authority and of the school. For example, Educational Psychologists can also contribute to the monitoring and evaluation of NG pupils during participation in NGs as well as following integration into mainstream classes. At the level of the Local Authority there is potential for Educational Psychologists to impact on the implementation of NGs in schools through authority wide policies and procedures

The current research has clearly demonstrated that NG pupils can contribute to improved understandings of NG processes and features and can make insightful comments about helpful and unhelpful mechanisms in terms of supporting SEB development. Despite these insights, at times, NG pupils found it difficult to fully make sense of certain experiences and to link these experiences and meanings to their SEB development. However, Smith et al., (2009) suggests that often the richest, rawest and

most powerful data often comes from participants' less polished accounts and that certain aspects of experience may not be communicable in words. This became particularly evident when NG pupils found it difficult to explain how the NG dynamic (after being identified as a barrier) would explicitly facilitate their SEB skills development.

Lastly, this study presents an idiographic approach to exploration (Smith et al., 2009), therefore, caution should be noted in attempting to generalise findings. As such this study has prioritised the experiential claims of NG pupils (a previously under researched group) and has provided a rich and contextualised account. Further understandings could be achieved by engaging NG pupils in further interpretative work.

Transcript Extract Notation

...a pause in NG pupils' accounts

[] additional gestural or behavioural observation

¹Aye- Scottish term taken to mean "yes"

²thingy- taken to mean "thing"

³chuking it down- taken to mean "pouring with rain"

⁴cause- taken to mean "because"

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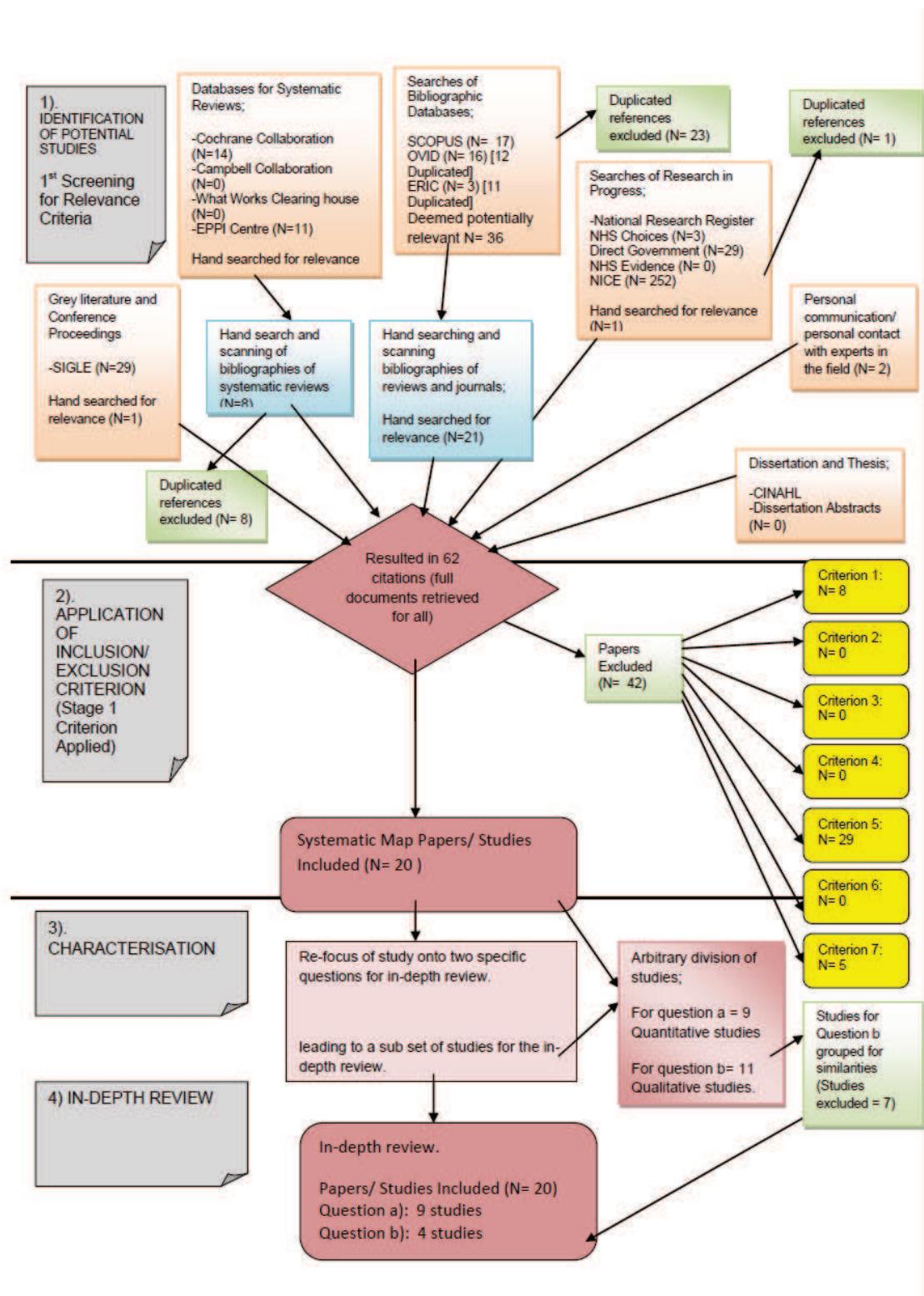
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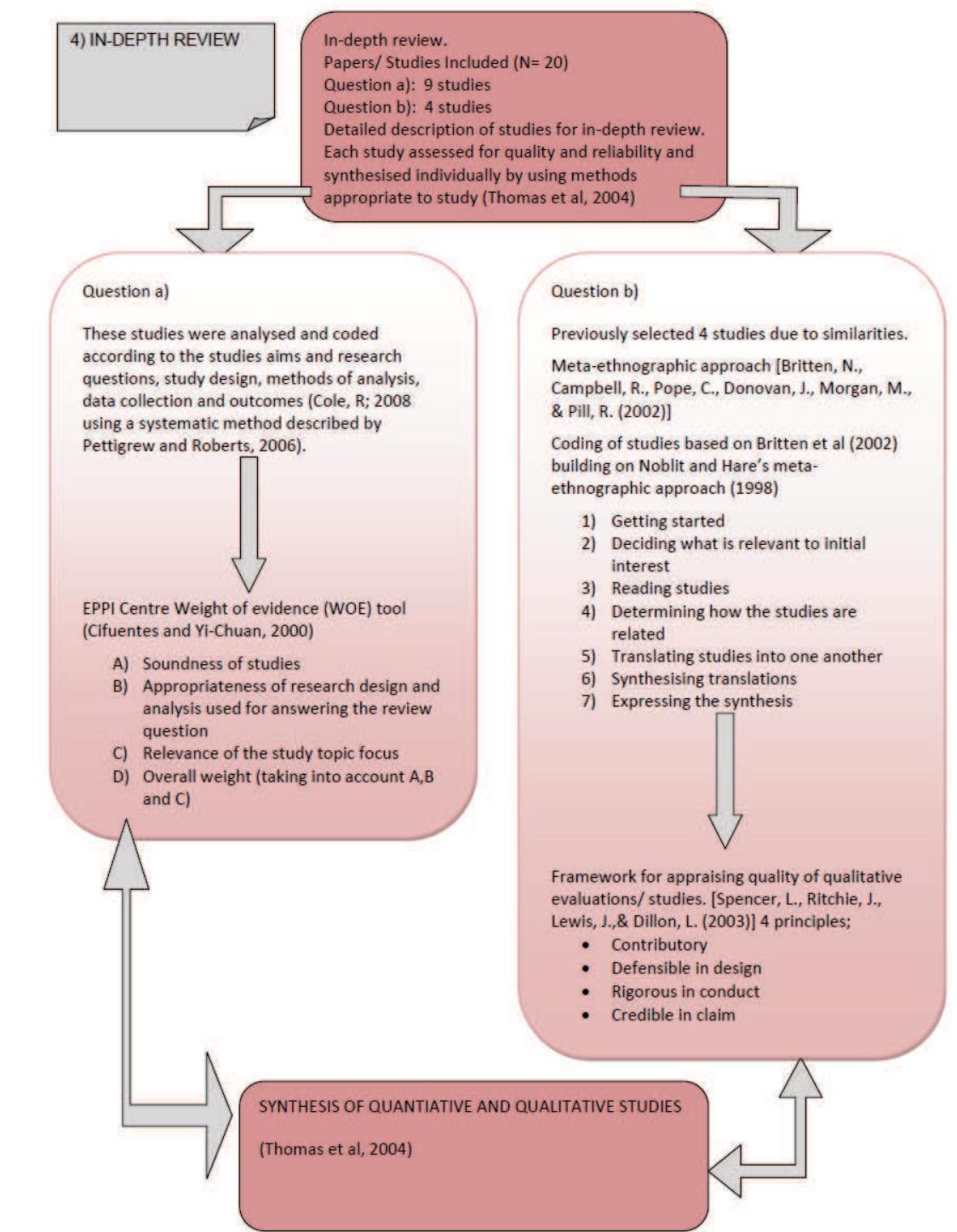
APPENDICES

Appendix A: Systematic Review Stages (from Petticrew and Roberts, 2006)

1. Clearly define the review question in consultation with anticipated users
2. Determine the types of studies needed to answer the question
3. Carry out a comprehensive literature search to locate these studies
4. Screen the studies found using inclusion criteria to identify studies for in-depth review
5. Describe the included studies to “map” the field, and critically appraise them for quality and relevance
6. Synthesis studies’ findings
7. Communicate outcomes of the review

Appendix B: Filtering of papers from searching to map to synthesis





Appendix C: Search Strategy for electronic databases

ERIC (initial search)

The following thesaurus terms were entered into the Eric search engines with restrictions to English Language.

1. Nurture group
2. Nurture
3. Nurturing
4. #1 or #2 or #3
5. Social development
6. Emotional intelligence
7. Interpersonal competence
8. Psychosocial development
9. Social attitudes
10. Social cognition
11. Social experiences
12. Social influences
13. Socialisation
14. #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13
15. Emotional development
16. Learning readiness
17. Personality development
18. School readiness
19. Attachment behaviour
20. Affective measures
21. Affective behaviour
22. #15 or #16 or #17 or #18 or #19 or #20 or #21
23. Behaviour development
24. # 23
25. Evaluation
26. Evaluation measures
27. Evaluation needs
28. Evaluation criteria
29. Evaluation research
30. Evaluative thinking
31. Evaluators
32. Success

- 33. Testing
 - 34. Expectation
 - 35. Measurement
 - 36. Measures
 - 37. Objectives
 - 38. Observation
 - 39. Research
 - 40. Research and development
 - 41. Psychosocial evaluation
 - 42. Psychological evaluation
 - 43. Informal evaluation
 - 44. Formative evaluation
 - 45. Holistic evaluation
 - 46. Informal assessment
 - 47. Peer evaluation
 - 48. Self-evaluation
 - 49. Student evaluation
- #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49
- 50. #4 and #14 and #22 and #24 and #50

The above terms were entered into the OVID and SCOPUS search engines

Appendix D: Inclusion and Exclusion Criteria

Studies were excluded if they met one of the following Stage 1 exclusion criteria (Stage 1 criterion):

SCOPE

- (Exclude 1) Not focused on pupils who experience a Nurture Groups of some kind (i.e. a study that is not specific to Nurture Group intervention)
- (Exclude 2) Not conducted as part of a mainstream school
- (Exclude 3) Not indicating pupil outcomes (as defined in the previous section- social and emotional)
- (Exclude 4) Not concerned with all or part of the 5-14 age range

STUDY TYPE

- (Exclude 5) Description, development of methodology or reviews/ articles that are not peer-reviewed or empirical

TIME AND PLACE

- (Exclude 6) Not written in English
- (Exclude 7) Not produced or published after 1995

This lead to a mapping exercise which included all of those studies which met all of the following criterion:

SCOPE

- (Include 1) Include a focus on pupils who experience a Nurture Groups of some kind (i.e. a study that is specific to Nurture Group intervention)
- (Include 2) Are conducted as part of a mainstream school
- (Include 3) Include an indication of pupil outcomes (as defined in the previous section- social and emotional)
- (Include 4) Are concerned with all or part of the 5-14 age range or some part of it

STUDY TYPE

- (Include 5) Are empirical in scope- exploration of relationships, evaluations or systematic reviews.

TIME AND PLACE

- (Include 6) Are written in English
- (include 7) Are published or produced (if unpublished) after 1995

Appendix E: List of studies and study descriptors after first screening of relevance criteria (N= 62) and after inclusion and exclusion criteria (N= 20)



Included after 1st screening. Quantitative studies

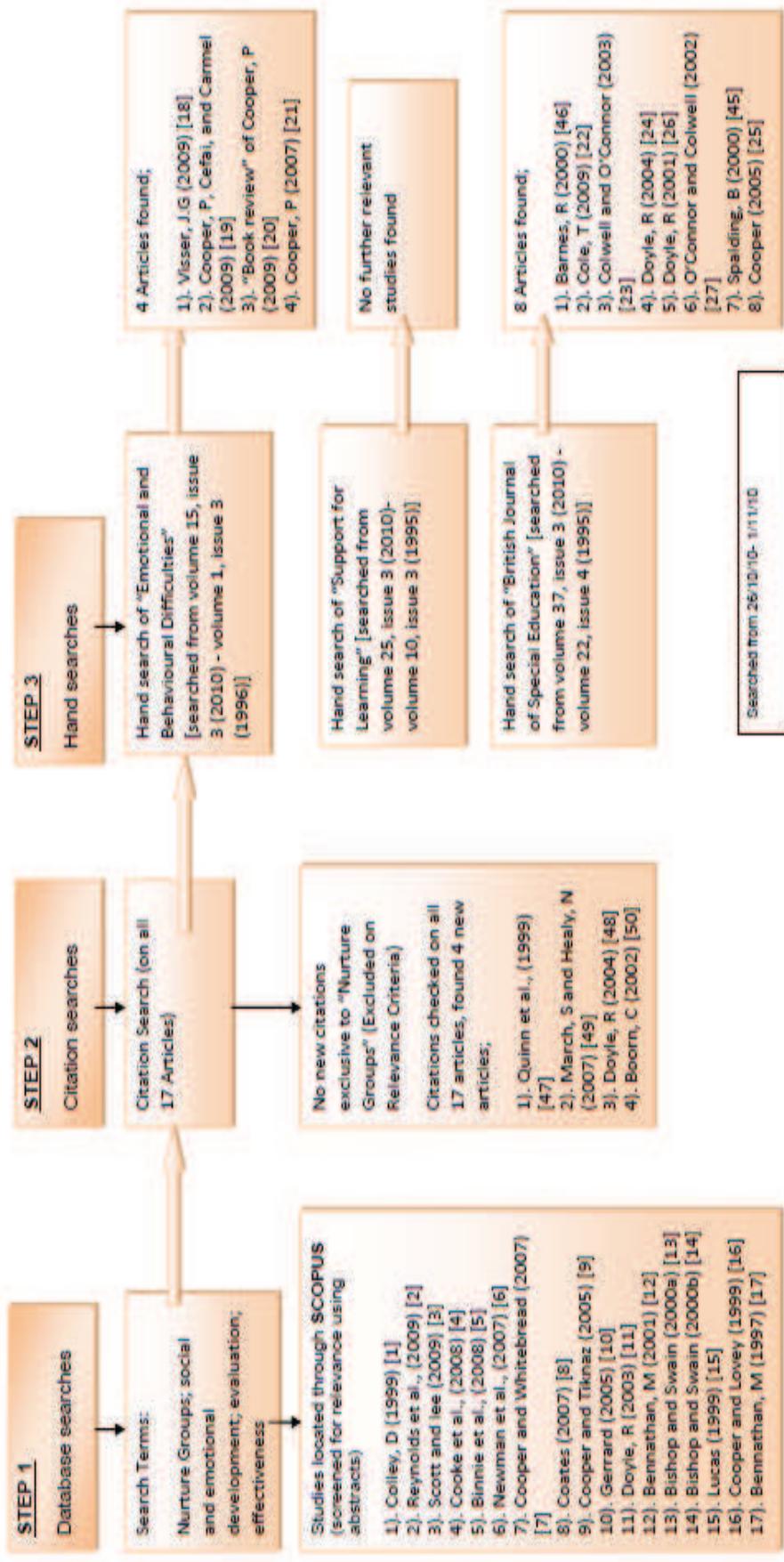


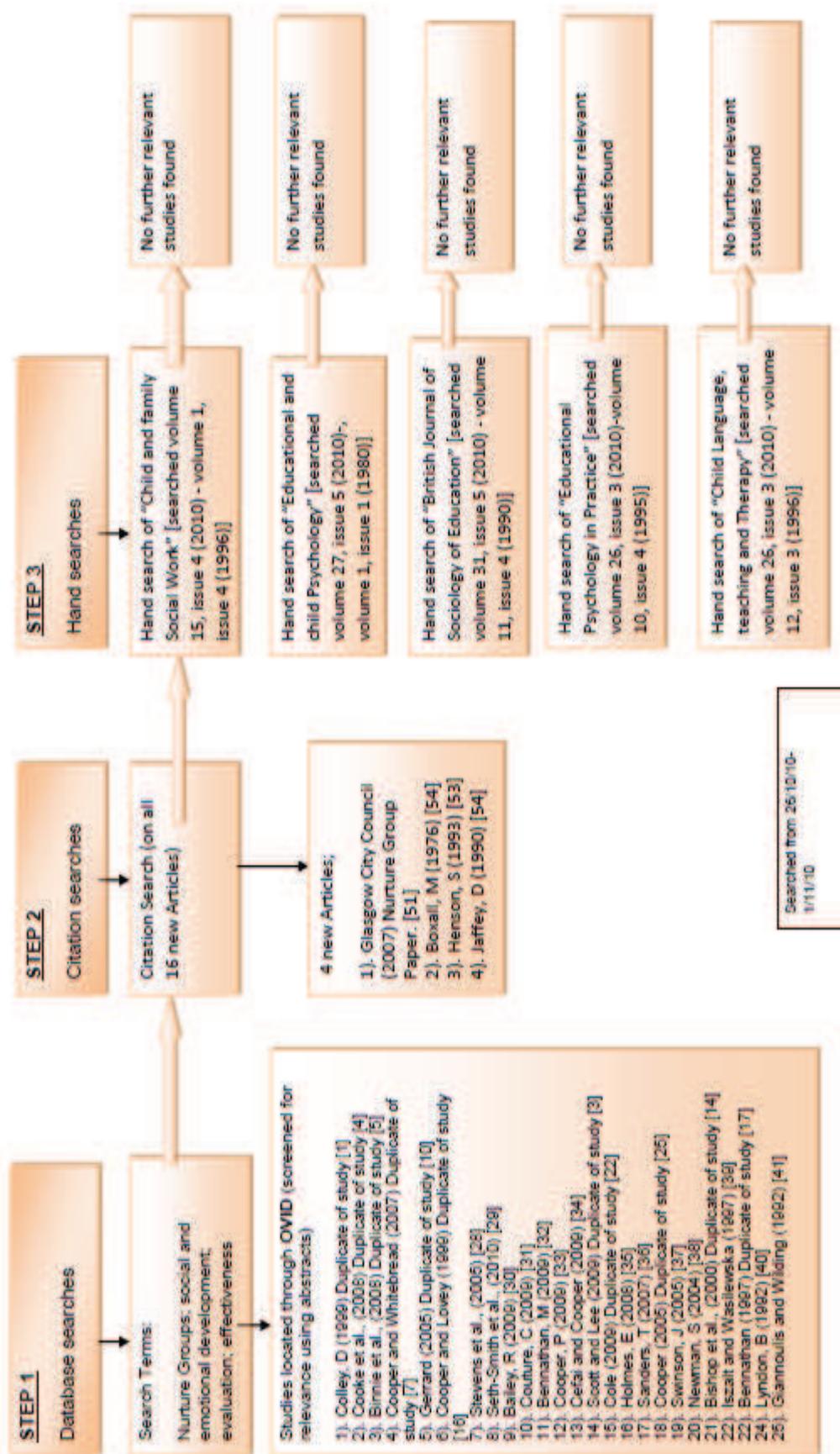
Included after 1st screening. More qualitative studies

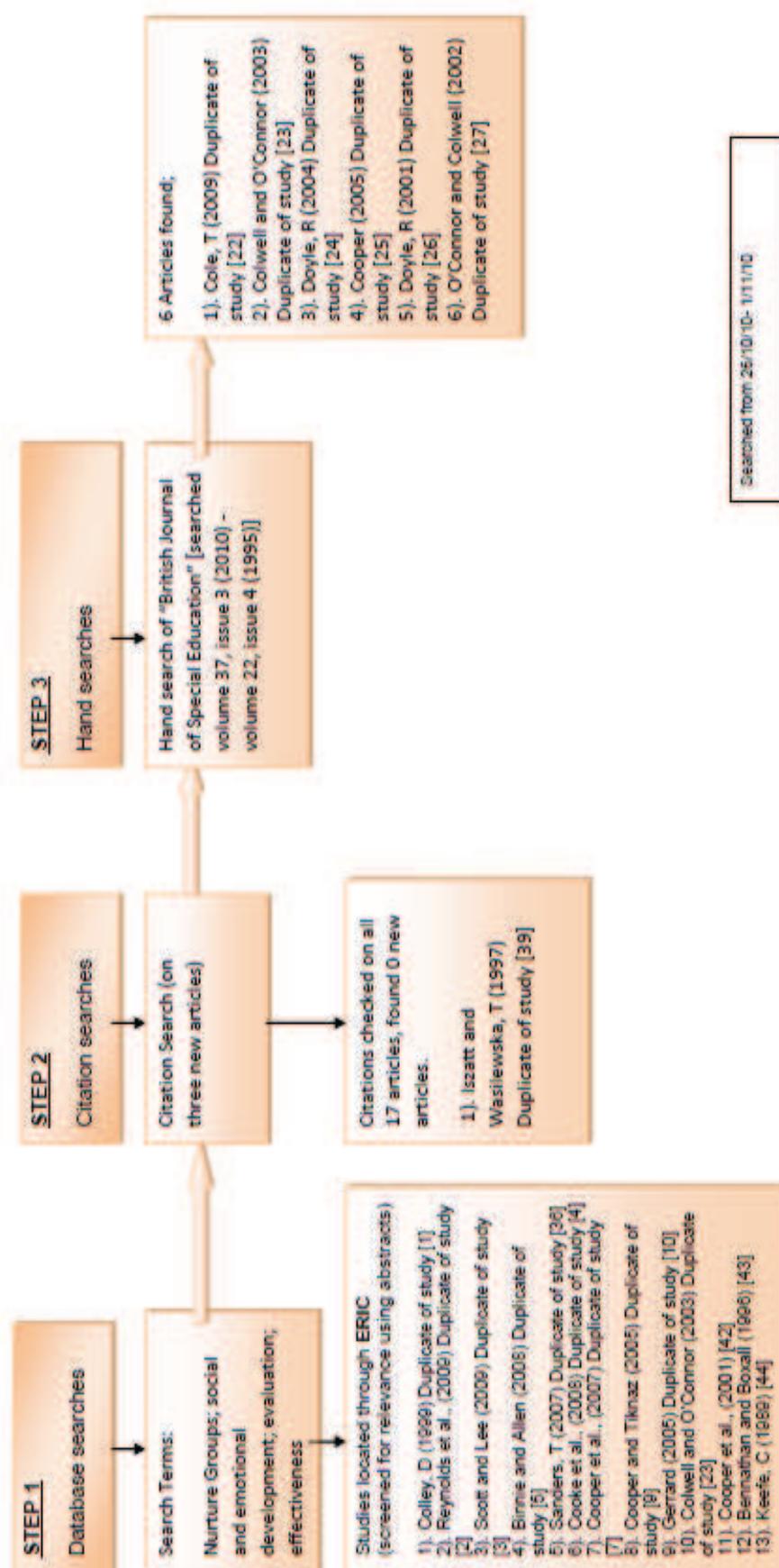
- 1). Colley, D (2009) **Exclude on criterion 5**
- 2). Reynolds, S, Mackay, T and Kearney, M (2009) **Include after 1st screening** √
- 3). Scott, K and Lee, A (2009) **Include after 1st screening** √
- 4). Cooke, C, Yeomans, J and Parkes, J (2008) **Include after 1st screening** √
- 5). Binnie, L and Allen, K (2008) **Include after 1st screening** √
- 6). Newman, M, Woodcock, A and Dunham, P (2007) **Include after 1st screening** √
- 7). Cooper, P and Whitebread, D (2007) **Include after 1st screening** √
- 8). Coates, J (2007) **Exclude on criterion 1**
- 9). Cooper, P and Tiknaz, Y (2005) **Include after 1st screening** √
- 10). Gerrard, B (2005) **Include after 1st screening** √
- 11). Doyle, R (2003) **Exclude on criterion 1**
- 12). Bennathan, M (2001) **Exclude on criterion 5**
- 13). Bishop, A and Swain, J (2000a) **Include after 1st screening** √
- 14). Bishop, A and Swain, J (2000b) **Include after 1st screening** √
- 15). Lucas, S (1999) **Exclude on criterion 1 and 5**
- 16). Cooper, P and Lovey, J (1999) **Include after 1st screening** √
- 17). Bennathan, M (1997) **Include after 1st screening** √
- 18). Visser, J.G (2009) **Exclude on criterion 1 and 5**
- 19). Cooper, P and Cefai, C (2009) **Exclude on criterion 1**
- 20). Book review of Cooper, P and Tiknaz, Y (2007) **Exclude on criterion 5**
- 21). Cooper, P (2007) **Exclude on criterion 5**
- 22). Cole, T (2009) **Exclude on criterion 5**
- 23). Colwell, J and O'Connor, T (2003) **Include after 1st screening** √
- 24). Doyle, R (2004) **Exclude on criterion 5**
- 25). Cooper, P (2005) **Exclude on criterion 5**
- 26). Doyle, R (2001) **Exclude on criterion 5**
- 27). O'Connor, T and Colwell, J (2002) **Include after 1st screening** √
- 28). Stevens, M, Liabo, K, Frost, S and Roberts, H (2005) **Exclude on criterion 5**
- 29). Seth-Smith, F, Levi, N, Pratt, R, Fonagy, P and Jaffey, D (2010) **Include after 1st screening** √
- 30). Bailey, R (2009) **Exclude on criterion 5**
- 31). Couture, C (2009) **Exclude on criterion 5**

- 32). Bennathan, M (2009) **Exclude on criterion 5**
- 33). Cooper, P (2009) **Exclude on criterion 5**
- 34). Cefai and Cooper, P (2009) **Exclude on criterion 5**
- 35). Holmes, E (2008) **Exclude on criterion 5**
- 36). Sanders, T (2007) **Include after 1st screening** ✓
- 37). Swinson, J (2005) **Exclude on criterion 5**
- 38). Newman, S (2004) **Exclude on criterion 5**
- 39). Iszatt, J and Wasilewska, T (1997) **Include after 1st screening** ✓
- 40). Lyndon, B (1992) **Exclude on criterion 7**
- 41). Giannoulis, K and Wilding, J (1992) **Exclude on criterion 7**
- 42). Cooper, P, Arnold, R and Boyd, E (2001) **Include after 1st screening** ✓
- 43). Bennathan and Boxall, M (1996) **Exclude on criterion 5**
- 44). Keefe, C (1989) **Exclude on criterion 5**
- 45). Spalding, B (2000) **Exclude on criterion 1**
- 46). Barnes, R (2000) **Exclude on criterion 1**
- 47). Quinn, M.M, Kavale, K.A, Mathur, S.R, Rutherford, R.B, Forness, S.R (1999) **Exclude on criterion 1 and 5**
- 48). Doyle, R (2005) **Include after 1st screening** ✓
- 49). March, S and Healy, N (2007) **Include after 1st screening** ✓
- 50). Boorn, C (2002) **Exclude on criterion 5**
- 51). Glasgow City Council Nurture Group Paper (2007) **Exclude on criterion 5**
- 52). Boxall, M (1976) **Exclude on criterion 7**
- 53). Henson, S (1993) **Exclude on criterion 7**
- 54). Jaffey, D (1990) **Exclude on criterion 7**
- 55). Ogier, R (2007) **Exclude on criterion 5**
- 56). Evans, J., Harden, A., Thomas. & Benefield, P (June 2003) A systematic review of the effectiveness of interventions (EPPI review) **Exclude on criterion 5**
- 57). Review conducted by the Behaviour Management (institute of Education) review Group. A systematic review of recent research on strategy effectiveness (August 2003) **Exclude on criterion 5**
- 58). Lucas, S (2007) **Exclude on criterion 5**
- 59). Glasgow City Council (2007) Educational Services Policy Development and Scrutiny Committee Report. **Exclude on criterion 5**
- 60). Colwell, J and O'Connor, T (2004) **Exclude on criterion 5**
- 61). Kourmoulaki, A-A (2010) "Nurture Groups in a Scottish secondary school: Purpose, features, value and areas for development. Unpublished MSc dissertation. **Exclude on criterion 5**
- 62). Fowler, C (2010) "How Nurturing is our school?" – A study in the process in working towards becoming a more nurturing school. Unpublished MSc dissertation. **Exclude on criterion 5**

Appendix F: Recording the Search







Appendix G: Characteristics of the seven quantitative studies included in in-depth review

Study	Participants	Context	Focus (group/ individuals) and duration	Design	Methods/ sources of evidence	Follow up	Results. Gains made (*= significant effect, p<0.05)	Effect size (d)
Age Group	Number (N)							
[STUDY 3] Scott, K & Lee, A	25 pupils (ages ranged from 4 to 10 years old)	50 (25 pupils in Nurture Group and 25 pupils in matched control group in same school)	4 different primary schools within same council area.	25 pupils attended Nurture Group in 4 different primary schools (2006/2007 school session).	Pre, - mid- and post- Nurture Group intervention.	Boxall Profile was used as a means of assessing the children's emotional and behavioural difficulties through classroom observation. This was supplemented by data on changes in the incidence of negative playground	Results were obtained by comparing the aggregated gains of the case children with those of the control children. 1) Case children had greater gains in all areas assessed and achieved greatest gains between October and	Not Given

		<p>"classic model" of Nurture Groups. All 4 groups operated on Nurturing principles. All children in Nurture Group received 5 half days, apart from one school where they received 4 half days.</p> <p>Study had two main aims;</p> <ol style="list-style-type: none"> 1) Investigating whether part-time participation in a small group setting based on nurture group principles can provide positive outcomes. 2) Investigating whether improvement in such a setting for 	<p>25 cases for age, gender and concerns relating to behaviour and learning. However, control group available in each school was limited and proved not to be entirely comparable in behaviour and learning to the case group.*</p> <p>All children who attended the Nurture Group on a part-time basis for a full academic session.</p>	<p>Incidents and negative contacts with home.</p> <p>Literacy assessed using Concepts of print (Clay, 1985) and a Phonological awareness and early Reading Skills (West Dunbartonshire Council, 2006)</p>	<p>February. Boxall Profile developmental strands p = 0.012, P<0.05</p> <p>Boxall Profile diagnostic strands p = 0.007, P<0.01</p> <p>Literacy p = 0.946</p> <p>Numeracy p = 0.438</p> <p>Motor skills p = 0.48</p> <p>Aggregated gains for literacy, numeracy and motor skills were greater for case than control children, the level of significance was at a $p>0.05$ level and was therefore not significant.</p> <p>2) Analysing outcomes for upper primary-aged children, aggregated gains were broken down by age and by school.</p> <p>Comparing aggregated gains by age group</p>
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Study	Age Group	Number	Context	Focus (Group/ individuals) and duration	Design	Methods/ sources of information	Follow up	Results, gains made (* = significant effect, p<0.05)	Effect size (d)
[STUDY 2] Reynolds, S, Mackay, T & Kearney, M (2009)	221 pupils (142 boys, 79 girls)	221 pupils (142 boys, 79 girls)	32 schools across City of Glasgow of which 16 were matched controls	117 attended Nurture Groups in 16 schools 104 attended 16 matched schools without Nurture	Matching process of 16 schools was highly formalised. This was a three-stage process for selection of control schools. Children assessed at 2	A range of quantitative measures used to assess change in academic attainments and emotional/ behavioural	Children assessed at 2 points. Time 1= (pre test) and time 2 (post test). The interval between time one and 2	For academic attainments; Children attending Nurture Groups showed significant gains in academic attainments as measured by their	Not Given

		<i>Groups.</i> Ages ranged from 5 to 7 years (126-primary 1); (95-primary 2).	points. Time 1 = (pre test) and time 2 (post test). The interval between time one and 2 was 6 months	functioning; -Boxall Profile -strengths and difficulties Questionnaire -Baseline Assessment for Early Literacy (MacKay, 1999, 2006) -Behavioural indicators of self-esteem (BIOS)	was 6 months.	total scores on baseline assessments (p <0.001. a stepwise multiple regression was then used to further significant improvements in academic attainments found for children attending Nurture Groups. The BIOS, SDQ and Boxall scores were all used as predictor variables with the resultant model highlighting that one variable as the best predictor of educational improvement, the Boxall strand of "unsupported development". This accounted for almost a quarter of the variance (Beta = -0.226, t = -2.798, p = 0.006). Together with the other Boxall strands of
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		<p>“organisation of experience” (beta = 0.151) and “internalisation of controls” (beta = 0.135), these factors accounted for just over half of the variance in baseline assessment improvements.</p> <p>For emotional/ behavioural change; On Boxall Profile, significant benefits were found for the Nurture Groups in comparison with the controls on all five strands, with significance levels ranging from $p=0.003$ to $P<0.001$.</p> <p>Boxall Strands Time 2 mean – Time 1 mean):</p> <p>Organisation of experience $F = 29.486$, $p<0.001$</p> <p>Internalisation of controls $F = 12.328$, $p<0.001$</p>

<p>Self-limiting features $F = 9.023, p=0.003$</p> <p>Underdeveloped behaviour $F = 15.411, p<0.001$</p> <p>Unsupported development $F = 12.356, p = 0.001$</p> <p>On Strengths and difficulties questionnaire, while the trend of scores was in the right direction, the results did not reach significance levels either for "total difficulties" or for "pro-social behaviour".</p> <p>Total difficulties score $F = 2.709, \text{ns}$</p> <p>Pro-social behaviour $f = 6.373, p= 0.013$</p> <p>ns</p> <p>On the BIOS, significant benefits were found for the nurture group versus controls ($p= 0.001$). $F = 10.493$</p>

Study	Age Group	Number	Context	Focus (Group/ individuals) and duration	Design	Method/s/ sources of information	Follow up	Results, Gains made (* = significant effect, p<0.05)	Effect size (d)
[STUDY 5] Binnie, L & Allen, K (2008)	36 children. Mean age was 7 years and 2 months (SD = 1.57)	36 children (28 male; 8 female)	Nurture Group intervention in one local authority. Findings from 6 schools during academic year 2006-2007.	The schools operated their nurture group for a maximum of four mornings per week. Each pupil attended for 4 morning sessions per week.	A within-group, repeated measures method was adopted to evaluate the impact of the Nurture Group intervention. The period between pre and post intervention measures was 8 months.	Within child measures; Three standardised measures were employed; -Boxall Profile -Behavioural indicators of Self-Esteem scale -Strengths and Difficulties Questionnaire (completed by class teacher and parent/ carer) (Goodman, 1997).	The period between pre and post intervention measures was 8 months.	Profiles for each child were completed pre intervention and post intervention and then collated into a school mean score and an overall score. Boxall Profile scores; All schools increased their performance on the developmental strand of the Boxall Profile following the intervention. As a group, the results of the developmental strand improved significantly following intervention $t[35] = -9.897, p = 0.001$. All schools also increased their performance on the diagnostic profile of the Boxall Profile following intervention $t[35] = 6.798, p =$	Not Given

	<p>questions on a four point scale with the opportunity for comments). It was designed to gather data relating to school-home links, impact at home and overall perception regarding the effectiveness of the intervention.</p> <ul style="list-style-type: none"> • Staff Questionnaire (12 questions completed on the same 4 point scale with the opportunity for comments). <p>Ascertaining information regarding the perceived impact on the child, class</p> <p>0.001. Children's scores were further analysed according to the 5 subsections;</p> <ol style="list-style-type: none"> 1) "Organisation of experience" $t[35] = -9.7$, $p = 0.0001$, $p < 0.001$ 2) "Internalisation of control" $t[35] = -9.2$, $p < 0.0001$ 3) "self-limiting features" $t[35] = 5.5$, $p < 0.0001$ 4) "undeveloped behaviour" $t[35] = 7.7$, $p < 0.0001$ 5) "unsupported development" $t[35] = 5$, $p < 0.0001$. <p>BIOS scores; Overall a significant improvement in self esteem was reported following intervention; $t[35] = -6.132$, $p = 0.0001$</p> <p>Strengths and difficulties Scores (Teacher rating); All schools reported</p>
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		<p>a positive change in children's social and emotional development (as determined by a reduction in total SDQ score) following intervention, as observed by their observed behaviour in the classroom.</p> <p>The overall group showed a significant improvement in behaviour following intervention $t[35] = 5.979, p=0.0001$.</p> <p>Further analysis of the Strengths and Difficulties Questionnaire according to the three categories of "abnormal", "borderline" and "normal" showed a reduction in the number of children categorised as "abnormal" following intervention and an increase in the</p>
	<ul style="list-style-type: none"> and school. Head Teachers Questionnaire (5 questions on a 6 point scale and opportunities for comments). Ascertaining perceptions regarding impact on children, families and staff. 	

<p>number of children categorised as "normal" following intervention.</p> <p>Strengths and difficulties Scores (Parent rating):</p> <p>The overall group showed a significant improvement in behaviour reported by parents following intervention $t[22] = 3.338, p = 0.003$. A χ^2 analysis based on the proportions of children in "normal", "borderline" and "abnormal" categories showed a significant shift between the pre and post intervention categorisations ($\chi^2 = 10.364, df = 2, p = 0.006$).</p> <p>Parent, staff and teacher observations also evaluated using percentages.</p>

Study	Age Group	Number	Context	Focus (Group/ individuals) and duration	Design	Method/s/ sources of information	Follow up	Results, Gains made (* = significant effect, p<0.05)	Effect size (d)
[STUDY 29] Seth-Smith, F, Levi, N, Pratt., R, Fonagy, P. & Jaffey, D (2010)	44 Nurture Group children in experimental condition and 39 in the control group.	44 Nurture Group children and 39 in the control group.	Nurture Groups in a large county local authority in south east England adhering to “classic” nurture group model.	Non randomised pre-test, post-test design to examine full –time Nurture Groups in a large county local authority in south east England adhering to “classic” nurture group model.	-Academic attainment scores from formal academic assessment were used as a marker of educational progress at first and second time points. This was measured by recording a single average score derived from each child's National Curriculum attainment in Literacy and Numeracy, or for younger children using p scales on Early years Foundation Stage.	Children assessed by teachers at two time points (when they arrived in nurture group, then approximately one and a half school terms (23 weeks)).	Not Given	For teacher rated Strengths and Difficulties scores: -used mixed effect models to these data testing the hypothesis that the change in Nurture Group ratings was significantly greater than in the comparison group (group x time effect). Wald statistic comparing baseline mean and end of treatment mean.	

	addressed predominantly within their main classroom.	Control schools met the criteria in terms of levels of social and economic deprivation, for funding of Nurture Groups but lacked space. **control children were not matched for particular problems or levels of difficulty. As a result they differed significantly with regard to age and academic ability prior to testing.** 44 Nurture Group children in experimental condition and 39 in the control group.	a multi level mixed effect linear regression. Study did not use a repeated measures analysis of covariance as if it could aggregate changes across participants so that a mean difference can hide increases in some participants because of larger decreases in other cases.	(Goodman, 1999) -Boxall Profile (Bennathan and Boxall, 1998)	<ul style="list-style-type: none"> Wald statistic χ^2 (df= 5) = 7.5, p>ns, change over time coefficient = -0.1, p<ns, group effect over time coefficient = -0.3, p<ns. "Conduct scale" Wald statistic χ^2 (df= 5) = 5.9, p>ns, change over time coefficient = 0.1, p>ns, group effect over time coefficient = -0.6, p<ns. "Hyperactive scale". Wald statistic χ^2 (df= 5) = 23.0, p<0.0003, change over time coefficient = -0.2, p<ns, group effect over time coefficient = -1.1, p<0.02. "Peer problems scale". Wald statistic χ^2 (df=5) = 12.2, p<0.04. change over time coefficient =
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<p>-0.2, p<ns, group effect over time coefficient = -1.1, p<0.05</p> <ul style="list-style-type: none"> • “Pro-social scale” Wald statistic = X^2 9df= 5) = 29.8, P<0.0000. <p>Change over time coefficient = 0.2, p<ns, group effect over time coefficient = 1.4, p<0.04.</p>	<p>Analysis of the Strengths and Difficulties subscales for both groups revealed no significant changes over time. However, the change between baseline and end of intervention was significantly greater in the Nurture Group on 3 subscales.</p>	<p>For Boxall Profiles: 4 summary scales on</p>

<p>the Boxall Profile were examined and the means and standard deviations and results of multiple regression.</p> <ul style="list-style-type: none"> “organisation of experience” Wald statistic χ^2 (df= 5) = 62.2, $P < 0.0000$. change over time coefficient = 0.7, $p < 0.05$, group effect over time coefficient = 1.3, $p < 0.006$. “internalisation of controls”. Wald statistic χ^2 (df=5) = 44.1, $P < 0.0000$. change over time coefficient = 0.6, $p < 0.05$. Group of effect over time coefficient = 1.0, $p < 0.02$ “undeveloped Behaviour”. Wald statistic χ^2 (df=5) = 11.0, $p < 0.05$. Change over time

	<p>coefficient = -0.2, p<ns. Group effect over time coefficient = -1.0, p<ns</p> <ul style="list-style-type: none"> “unsupported development”. <p>Wald statistic χ^2 (df= 5) = 17.5, p<0.0004.</p> <p>Change over time coefficient = -0.05, P<ns.</p> <p>Group effect over time coefficient = -1.4, p<0.05.</p>	<p><u>For attainment pre and post intervention for both groups:</u></p> <p>The increase in attainment scores was statistically significant for both groups combined across the time period but the improvements were more consistent amongst the Nurture</p>

Study	Age Group	Number	Context	Focus (Group/ individuals) and duration	Design	Methods/ sources of information	Follow up	Results, gains made (* = significant effect, p<0.05)	Effect size (d)
[STUDY 42] Cooper, P., Arnold, R. & Boyd, E (2001)	<i>In October 1999, 84% of children were primary aged between 4 and 7 years, and 16% were between 7 and 10 years.</i>	342 pupils	Pupils distributed between 25 state funded schools, of which 23 are in the primary sector and 2 are in the secondary phase.	The study is longitudinal in design, taking place over 2 years. 342 pupils (216 are in Nurture Groups); 64 are matched children with Social and Emotional behavioural difficulties in Schools are	Builds on earlier research paper (Cooper, Arnold & Boyd, 1999) which identified key characteristics by which a genuine Nurture Group can be defined as well as describing 4 different variations of the Nurture Group theme.	-Strengths and Difficulties Questionnaire (Goodman 1999, 1997). Used with mainstream teachers. -pupils attending the Nurture Groups assessed using the Boxall Profile (Bennathan and	Strength and Difficulties Questionnaires and Boxall Profile data are gathered on all students when they enter nurture group. Measures repeated during the second and third term of their	ONLY INTERIUM FINDINGS REPORTED. STUDY IS HALF COMPLETE. ADDITIONAL CASES ADDED IN FINAL ANALYSIS WILL COMPARE PERFORMANCE AT THE BEGINNING OF TERM 1 WITH PERFORMANCE AT	Not Given

			<p>distributed across 8 Local Education Authorities of varying sizes, including rural, unitary and metropolitan types, drawn geographically from diverse locations throughout England. This included areas of high, medium and low levels of social deprivation.</p> <p>mainstream classes; 62 are matched children without social Emotional and Behavioural difficulties in mainstream classes.</p> <p>-17 of the Nurture Groups conformed to “classic” model where 10 to 12 children attend 4.5 days per week whilst retaining register of mainstream class. However, other variations in this study included;</p> <ul style="list-style-type: none"> -one full-time group -2 groups in a secondary school setting 	<p>Boxall Profile data are gathered on all students when they enter nurture group. Measures repeated during the second and third term of their attendance in the nurture group, or upon their full-time return to a mainstream class if this is sooner. Interviews carried out over the same period. Academic progress is gathered annually.</p> <p>-Pupil perceptions accessed using a face-to-face informant-style interview.</p> <p>-Educational progress is assessed using national Curriculum and teacher perception data focusing on progress in English, mathematics and science.</p>	<p>Boxall, 2000; 1998). -parent perceptions accessed using a semi-structured telephone interview.</p> <p>Comparison group data is taken over same timescale but using Strengths and Difficulties Questionnaire only.</p>	<p>attendance in the Nurture Group, or upon their full-time return to a mainstream class if this is sooner. Interviews carried out over the same period. Academic progress is gathered annually.</p> <p>Comparison group data is taken over same timescale but using Strengths and Difficulties Questionnaire only.</p>	<p>THE END OF TERM 4.</p> <p>For teacher rated Strengths and Difficulties Questionnaire:</p> <ul style="list-style-type: none"> • At entry 92% of children in Nurture Groups were in the “abnormal” or “borderline” range on the SDQ when they were observed in mainstream classes, compared with 84% of matched mainstream pupils with social, Emotional and Behavioural difficulties. By the third term this had changed to 63% for Nurture Group pupils compared with 75% for pupils with Social, Emotional and behavioural difficulties. The
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	<p>-5 groups running on a half-time basis</p> <p>Study focused on following aims;</p> <ul style="list-style-type: none"> • What are the effects of Nurture Groups on children's social, emotional and behavioural and educational functioning? • How do different variants on the Nurture Group approach compare in terms of their effectiveness in promoting the positive social, emotional and educational development of pupils? 	<p>mean differences between these scores is statistically significant 9chi square, $p = <0.000$.</p> <p>For teacher rated Boxall Profiles;</p> <ul style="list-style-type: none"> • Indicates statistically significant improvements in mean scores on both developmental and diagnostic strands between the beginning of term one and the end of term 2. <p>Repeated Measures ANOVA (Time 1-Time 2);</p> <ul style="list-style-type: none"> • “Organisation of Experience”, $F = 90.27$, $p < 0.000$ • “Internalisation of controls”, $F = 69.52$, $p < 0.000$
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	<ul style="list-style-type: none"> • What is the impact of the Nurture Group approach on the mainstream schools they serve, in terms of mainstream teachers' perceptions and practice? • What are the children's and parent's perceptions of and attitudes towards Nurture Groups? 	<ul style="list-style-type: none"> • "Self-Limiting features", $F = 34.72$, $p < 0.000$ • "Undeveloped Behaviour", $F = 32.91$, $p < 0.000$ • "Unsupported Development", $F = 17.19$, $p < 0.000$ <p>Data from teacher's perceptions (academic progress):</p> <p>-Indicate that progress was made, but no comparative data against which to judge these perceptions.</p> <p>Different Variants of Nurture Groups:</p> <p>-17 of the Nurture Groups conformed to "classic" model where 10 to 12 children attend 4.5 days per week whilst retaining register of</p>
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Study	Age Group	Number	Context	Focus (Group/ individuals) and duration	Design	Methods/ sources of information	Follow up	Results, gains made (* = significant effect, p<0.05)	Effect size (d)
[STUDY 36] Sanders, T. (2007)	<i>Boxall Profile for Nurture Group children (N = 17 Year R and Key stage 1 children)</i>		3 schools in Hampshire. Infant schools (mainstream). These schools were invited to bid to join a Boxall Profile	3 schools with Nurture Group. In 2 of the schools, children's needs were marked that they were findings it	<u>Provision Questionnaire:</u> 2 schools with Nurture Groups provided data about the provision that 29	Boxall Profiles on Nurture Group children before and after attending a nurture group. Boxall Profiles	<u>Whether nurture group children made significant social, emotional and behavioural gains</u>	Not Given	A t-test compared

<p><i>for comparison school (N = 9 children; Year R and Key stage 1)</i></p> <p><i>Class teachers in 3 Nurture Group schools provided data re social, emotional and academic gains (19 pupils) after two terms.</i></p>	<p>Nurture Group Pilot. The schools required to be a two form entry provision and have a significant level of children with special educational needs.</p> <p>The third school was looking for preventative approach to meet the significant social, emotional and behavioural needs of the children.</p>	<p>difficult to form relationships with staff and peers and to access the curriculum. High staff absenteeism and Nurture Groups were established as a reactive intervention. The third school was</p> <p>One comparison school where there were a number of effective behaviour management strategies and social skills interventions in place.</p>	<p>Key Stage 1 children needed upon exit on Nurture Groups.</p> <p>Boxall Profile: Completed by class teachers before and after children attended a Nurture Group for 17 Year R and Key stage 1 children (6 girls and 11 boys) in an infant school.</p>	<p>were only on a small sample of children in ONE school with a nurture group who had attended the Nurture Group for TWO terms.</p> <p>Boxall Profiles on comparison children (9 pupils) at beginning and end of academic year</p>	<p>average differences from the norm, scored by children in a Nurture Group using the Boxall Profile before and after attending a group. (T1- before); (T2- after) comparison.</p> <p>[T2 and T1 comparison] Sub strand A $t=2.3$, $p<0.001$ Sub strand B, $t= 1.5$, $p<0.001$ Sub strand C, $t= 1.1$, $P<0.001$ Sub strand D, $t= 2.6$, $p<0.001$ Sub strand E, $t= 1.9$, $P<0.001$ Sub strand F, $t= 1.4$, $P<0.001$ Sub strand G, $t= 3.2$, $p<0.001$ Sub strand h, $t= 4$, $P<0.001$ Sub strand I, $t= 2.6$, $p<0.001$ Sub strand J, $t = 1.2$,</p>
	<p><i>7 children interviewed in 3 Nurture Group schools</i></p>	<p><i>17 staff in 3 Nurture Group schools interviewed</i></p>	<p><i>29 staff in 3</i></p>		

<p><i>Nurture Group schools completed questionnaire</i></p>	<p>of size, levels of social and economic deprivation, levels of special educational needs, and had a well-established approach to supporting children with social, emotional and behavioural difficulties.</p>	<p>The majority of the children attended the Nurture Group over three terms on a part time basis.</p>	<p>Study had a number of different aims;</p> <ul style="list-style-type: none"> • Whether Nurture Group children are able to remain in 	<p>Class teachers in three schools with Nurture Groups provided data about the social, emotional and academic gains for 19 pupils (17 boys and 2 girls) after the pupils had completed an average 2 terms in a group.</p>	<p><u>Interviews:</u></p> <p>7 children (5 boys, 2 girls) were interviewed (semi-structured) in 3 schools with Nurture Group about their perception of school, themselves as a learner, and friendships.</p>	<p>summer.</p> <p>p<0.001</p>	<p>Sub strand R, t= 4.5, not significant</p> <p>Sub strand S, t= 2.4, not significant</p> <p>Sub strand T, t = 4.9, P<0.01</p> <p>Sub strand U, t = 3.2, not significant</p> <p>Sub strand V, t = 3.1, P<0.001</p> <p>Sub strand W, t = 6, p<0.01</p> <p>Sub strand X, t = 5.2, p<0.01</p> <p>Sub strand Y, t = 6.8, not significant</p> <p>Sub strand Z, t = 3.4, not significant</p> <p>Generally children were found to make significant progress in all areas measured except in sub strands R, S, u, y and Z.</p> <p>T-test was also used to determine whether children made greater gains in one sub strand. The</p>
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			<p>greatest gains were made in the developmental sub strand, suggesting that children had better developed skills to organise their experiences and control themselves.</p> <ul style="list-style-type: none"> • <u>Whether comparison group children made significant social, emotional and behavioural gains</u>
	<ul style="list-style-type: none"> • <u>mainstream schools</u> • <u>Whether Nurture Group children made significant social, emotional and behavioural gains</u> • <u>Whether comparison group children made significant social, emotional and behavioural gains</u> • <u>Whether Nurture Group children made academic gains</u> • <u>Whether the Nurture Group had an impact on the whole school</u> 	<p>nurture group staff as having the most marked needs.</p> <p>8 teachers, 6 Nurture Group staff and 3 Head Teachers were interviewed about the impact of the Nurture Group upon children, the mainstream class, parents and the whole school.</p> <p>Parents from 2 Nurture Group schools were interviewed about their understanding of the groups and gains children had made.</p> <p><u>Questionnaire:</u> All staff in 3 Nurture Groups (29 teachers and learning support</p>	<p>T-test used to measure the average distance from the norm, scored by children in the control group at the beginning and end of academic year.</p> <p>Generally positive shifts were measured, however, one of these was significant (shows</p>

			<p>insightful engagement). 3 children indicated a decline in areas as measured by the Boxall Profile.</p> <ul style="list-style-type: none"> • <u>Did the nurture group children make significant gains in contrast to the comparison group?</u> <p>T-test was used to compare Boxall Profiles for children in intervention group with comparison group. There was significant difference at the 0.05 level indicating that the intervention group did make significantly greater gains.</p> <p><u>Naturalistic Observations:</u></p> <p>-quality of interactions between children and staff greatly improved.</p>
	<ul style="list-style-type: none"> • Whether parents recognised differences in their children following attendance in Nurture Groups • Whether different groups of children made gains at different times in a Nurture Group • Whether the Nurture Group had an impact on the child's whole school experience • Whether teachers perceived any disadvantages associated with Nurture Groups. 	<p>assistants) were asked to complete questionnaire rating impact of a range of social and emotional factors upon children's behaviour.</p> <p><u>Observations:</u></p> <p>Naturalistic observations of children in three Nurture Groups were conducted on a termly basis to provide qualitative data. [Interview schedules, provision pro-formas, pupil assessment and staff questionnaires were all designed specifically for the Nurture Group pilot]</p>	

Study	Age Group	Number	Context	Focus (Group/ individuals) and duration	Design	Methods/ sources of information	Follow up	Results, gains made (* = significant effect, p<0.05)	Effect size (d)
[STUDY 7] Cooper, P. & Whitebread, D. (2007)	Mean age : 6 years, 5 months.	546 students chartered across a range of measures.	34 schools with NGs were studied. Schools were spread across 11 Local Educational Authorities of varying sizes, rural, urban, unitary and metropolitan.	The study attempted to assess the effectiveness of Nurture Groups in promoting positive social, emotional and educational development;	Longitudinal design, taking place over 2 years. Group 1a: 284 pupils attending 23 schools in 8 LEAs. All schools had a nurture group that had been established for 2 years prior to September 1999. 22 schools were primary. 21 schools conformed to classic Boxall NG model, whilst secondary represented variant 3.	Qualitative data were gathered by questionnaires from staff, parents and pupils in each of the 34 NGs. [DATA PRESENTED IN SUBSEQUENT ARTICLE].	NG and control group 1 data gathered over four consecutive terms.	Question 1: What are the effects of NGs on pupils' social, emotional and educational functioning?	Not Given

			<p>Reflected various levels of social deprivation, although all schools served areas of relatively high deprivation and low educational attainment.</p> <p>Question 3: What is the impact of NGs on the mainstream schools they serve, in terms of NG staff perceptions and mainstream staff perceptions and practice?</p> <p>[Cooper et al., 1998 provided a preliminary to current research]</p>	<p>do differences between NGs affect pupil progress?</p> <p>Question 3: What is the impact of NGs on the mainstream schools they serve, in terms of NG staff perceptions and mainstream staff perceptions and practice?</p> <p>[Cooper et al., 1998 provided a preliminary to current research]</p>			<p>attending 111 newly established NG (2 years or less by September 2000). 8 groups were from primary schools; 2 were from secondary schools.</p> <p>Group 2: Control group for group 1. 64 pupils with social and emotional and behavioural difficulties attending same mainstream schools as group 1a. Matched to a random sample of group 1a children in terms of age, gender and perceived academic ability.</p>				<p>Teacher and parent interviews were carried out twice over the period of the study.</p> <p>Academic progress data gathered at the commencement of NG attendance and Boxall data.</p> <p>Comparison group data gathered over same time scale using SDQ only.</p>				<p>These measures repeated during the second and fourth terms of their attendance in NG, or upon full-time return to mainstream class if this occurred sooner.</p> <p>Comparing differences in term 1 and term 2 for group 1 pupils and group 3 controls in same school, t test = -7.613 (equal variances not assumed), df = 248, p=0.000**. chi-squared analysis for Ng pupils ($\chi^2 = 36.163$, p=0.000**).</p> <p>Chi-squared for mainstream pupils ($\chi^2 = 0.070$, p=0.791)</p>			<p>Group 3: Control for group 2. 62 pupils perceived by school staff to have no social, emotional and behavioural problems, attending same mainstream schools as</p> <p>Highlighted importance in variants of Nurture Group models;</p> <p>-variant 1: the classic Boxall NG</p>	<p>the children in the same schools who were not attending NGs.</p> <p>For S&D Questionnaire results;</p> <p>Comparing differences in term 1 and term 2 for group 1 pupils and group 2 SEBD pupils in same school. Results were marginally not</p>
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		<p>-variant 2: new variant NGs</p> <p>-variant 3: groups informed by NG principles</p> <p>-variant 4: aberrant NGs</p>	<p>group 1a children and matched to a random sample.</p> <p>Group 4: Control for group 3. 31 pupils with social, emotional and behavioural difficulties attending mainstream schools without NGs, and matched to a random sample of group 1a children in terms of age, gender and perceived academic ability.</p> <p>Group 5: Control for group 4. 27 pupils perceived by school staff to have no social, emotional and behavioural problems, attending mainstream schools without NGs and matched to random sample of group 1a children in terms of age, gender and perceived academic ability.</p>	<p>attending the NGs assessed using Boxall Profile by NG teacher.</p> <p>Comparing differences in term 1 and term 4 for group 1 pupils and group 2 SEBD pupils in same school $t = -0.361$ (equal variances assumed), $df = 160$, $p = 0.719$. Chi-square analysis for term 1/ term 4 comparison showed significant change at lower level of statistical significance for NG children ($\chi^2 = 9.984$, $p = 0.41$, but not statistically significant for group 2 children ($\chi^2 = 2.181$, $p = 0.702$). »Whilst SDQ scores improved for both NG children and group 2 SEBD children same-school controls between term 1 and term 4, greatest</p>
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	<p>improvement was between term 1 and term 2.</p> <p>For Boxall Profile; Boxall Profiles completed by class teachers for each term- term 1, term 2, term 3, term 4.</p> <p><u>Comparing differences in term 1 and term 2 for NG children.</u></p> <p>Used paired sample t-test</p> <p>Organisation of experience: $t = -12.64$, $df = 252$, $p < 0.000^{**}$</p> <p>Internalisation of controls: $t = -11.03$, $df = 252$, $p < 0.000^{**}$</p> <p>Self-limiting features: $t = 6.81$, $df = 252$, $p < 0.000^{**}$</p> <p>Undeveloped behaviour: $t = 7.70$, $df = 252$, $p < 0.000^{**}$</p> <p>Unsupported development: $t = 16.24$, $df = 251$,</p>

<p>p<0.000**</p> <p>Significant improvements noted indicate that after two terms in the NG, pupils, in general, are better placed to engage effectively with learning activities in group situations.</p> <p>Comparing differences in term 1 and term 4 for NG children.</p> <p>Organisation of experience: $t = -10.88$, $df = 85$, $p < 0.000**$</p> <p>Internalisation of controls: $T = -11.17$, $df = 85$, $p < 0.000**$</p> <p>Self-limiting features: $t = 5.70$, $df = 84$, $p < 0.000**$</p> <p>Undeveloped behaviour: $t = 6.25$, $df = 84$, $p < 0.000**$</p> <p>Unsupported development: $t =$</p>

	<p>3.97, df = 84, p<0.000**</p> <p>Statistically significant improvements occur between terms 1 and 4 on Boxall scores.</p> <p>Comparing differences in term 2 and term 4 for NG children.</p> <p>Organisation of experience: $t = -3.78$, $df = 75$, $p<0.000**$</p> <p>Internalisation of controls: $t = -3.58$, $df = 75$, $p<0.001**$</p> <p>Self-limiting features: $t = 1.01$, $df = 75$, $p<0.316$ (NS)</p> <p>Undeveloped behaviour: $t = 2.41$, $df = 75$, $p<0.18^*$</p> <p>Unsupported development: $t = 0.70$, $df = 75$, $p<0.488$ (NS)</p> <p>Differences between terms 2 and terms 4 scores are on the whole less significant. This</p>
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		<p>supports the findings in Goodman data, to some extent, and indicates improvements in behaviour are most marked in the first two terms.</p> <p>QUALITATIVE DATA TO BE REPORTED IN SECOND PAPER.</p>

Appendix H: Measures used to evaluate SEB success of NGs per study

Study	Boxall Profile	SDQ	Other Measures Used *specific to SEBD outcomes
Study [2]; (Reynolds et al, 2009)	✓	✓ (version not stated)	Questionnaires; • Baseline assessment for Early literacy (MacKay, 1999, 2006) • Behavioural Indicators of Self-Esteem (BIOS)
Study [3]; (Scott and Lee, 2009)	✓		• Data on changes in the incidence of negative playground incidents and negative contacts with home • Literacy assessed using concepts of Print (Clay, 1985) and a phonological awareness and Early Reading Skills (West Dunbartonshire Council, 2006) • Baseline assessment in early number skills (Simon strategy, 1989) • Goodenough draw a man test (Goodenough, 1926); Copying shapes (Simon strategy, 1989) • Weekly diary and case study report on children filled in by NG teacher
Study [5]; (Binnie and Allen, 2008)	✓	✓ (Teacher and parent version)	• Behavioural indicators of self-esteem (BIOS) • 3 evaluation Questionnaires; parent questionnaire; staff; Head Teacher
Study [7]; (Cooper and Whitebread, 2007)	✓	✓ (Teacher version)	• Questionnaires from staff, parents and pupils in each of 34 NGs. [Data to be presented in subsequent article]
Study [29]; (Seth-Smith et al, 2010)	✓	✓ (Teacher version)	• Academic attainment scores (single score derived from each child's National Curriculum attainment in Literacy and Numeracy or younger children p scales)
Study [36]; (Sanders, 2007)	✓		• Interviews; -7 children using semi-structured interviews regarding their perception of school and themselves as learners and friendships -8 teachers, 6NG staff, 3 HTs interviewed regarding impact of NG on children, mainstream classes, parents and whole school. -3 parents interviewed regarding their understanding of the group and gains made by children

			<ul style="list-style-type: none"> • Naturalistic observations of pupils covering 3 school terms
Study [42]; (Cooper et al, 2001)	✓	✓ (Teacher version)	<ul style="list-style-type: none"> • Semi-structured telephone interviews to gather parent's perceptions <ul style="list-style-type: none"> • Pupil's perceptions accessed through face-to-face informant style interview • Educational progress accessed through national curriculum and teacher perception data focusing on improvements in English, Mathematics and Science.

Appendix I: Effect sizes (Cohen's d) and Confidence Intervals calculated for individual quantitative studies.

Study	Boxall Profile (Effect Size)	SDQ (Effect size)
Study [2] Reynolds et al., (2009)	Could not calculate ES as study did not provide standard deviation values for Boxall Profile scores or SDQ scores.	
Study [3] Scott and Lee (2009)	Could not calculate ES as study only gives p (levels of significance) value for aggregate gains between all case and control children.	
Study [5] Binnie and Allen (2008)	Could not calculate ES as study did not provide standard deviation scores for individual children. Scores were clustered together for 6 schools.	
Study [7] Cooper et al., (2007)	<u>Comparing Term 1 and Term 2</u> Organisation of experience; ES= 0.808125 CI (0.989364, 0.62688) Internalisation of controls; ES= 0.715033 CI (0.89478, 0.53528) Self-limiting Features; ES = -0.42316 CI (-0.2469, -0.59936) Undeveloped behaviour; ES = -0.43068 CI (-0.25441, -0.60695) Unsupported Development; ES= -0.29146 CI(-0.11627, -0.46665) <u>Comparing Term 1 and Term 4</u> Organisation of experience; ES= 1.503494 CI (1.841996, 1.64992) Internalisation of controls; ES= 1.419305 CI (1.753723, 1.08488) Self-limiting Features; ES= -0.81984 CI (-0.5086, -1.13104) Undeveloped Behaviour; ES = -0.83517 CI (-0.52351, -1.14683) Unsupported Development; ES = -0.46456 CI (-0.16166, -0.76746) <u>Comparing Term 2 and Term 4</u> Organisation of experience; ES= 0.447392 CI (0.769299, 0.125485) Internalisation of controls; ES= 0.389798 CI (0.710757, 0.068839) Self-limiting Features; ES= -0.13898 CI (0.179358, -0.45732) Undeveloped Behaviour; ES= -0.29943 CI (0.020301, -	Could not calculate ES as study only provided the number (and percentages) of children who fell into each category on SDQ

	0.61916) Unsupported Development; ES= -0.07913 CI (0.238948, -0.39721)	
Study [29] Seth-Smith et al., (2010)	Organisation of experience; ES= 0.83295 CI(1.276442, 0.389458) Internalisation of controls; ES= 0.66636 CI(1.103442, 0.229278) Self-Limiting Features; SCORES NOT PROVIDED Undeveloped Behaviour; ES= -0.52846 CI (-0.09566, -0.96126) Unsupported Development; ES= -0.61512 CI(-0.17974, -1.0505)	Total Problem Score; ES= -0.72562 CI(-0.28114, -1.1701) Emotion Scale; ES= -0.11754 CI(0.313388, -0.54847) Hyperactive scale; ES= -0.40437 CI (0.030554, -0.8393) Peer Problem Scale; ES= -0.63453 CI (-0.19328, -1.07578) Pro-Social Scale; ES= 0.637651 CI(1.079, 0.196302)
Study [36] Sanders (2007)	Could not calculate ES. Study only gave average differences from the norm scored by children before (T1) and after NG (T2) using the Boxall Profile. Many scores were only reflecting one child.	
Study [42] Cooper et al., (2001)	Organisation of experience; ES= 0.794659 CI (0.988526, 0.59679) Internalisation of controls; ES= 0.73403 CI(0.92888, 0.539187) Self-limiting Features; ES= -0.49259 CI (-0.30279, -0.68571) Undeveloped Behaviour; ES = -0.44487 CI (-0.25395, -0.63579) Unsupported Development; ES = -0.3215 CI (-0.13168, -0.51132)	Could not provide ES for SDQ scores as study only provided percentages and number of participants that fell into each SDQ category. Standard deviations were not provided, nor individual scores.

Appendix J: The EPPI-Centre “weight of evidence” (WOE) tool. This framework builds on the work on the evaluation of social and educational interventions (e.g. MacDonald, Sheldon and Gillespie, 1992; Oakley and Fullerton, 1996) by employing a four-stage process which determines the weight which should be accorded to each study used in the review. Judgements about the relative weight of evidence for each study were based on the following:

- A. Soundness or trustworthiness of studies (for question a)
- B. Appropriateness of research design and analysis (questions a and b)
- C. Relevance of the study topic focus to review question (questions a and b)
- D. Overall weight of evidence provided by the study (questions a and b)

Appendix K: Prompt questions developed from examples provided by Wall and Higgins (2007).

Thought bubble (internal):

- What do you think you have learnt about your behaviour or your emotions when being in the NG?
- What new skills did you achieve when you were in the NG?
- What did you learn about the way you learn?
- Your emotions?
- Your behaviour?
- What about working with other people, did you learn anything new?
- How will the NG change the way you think about learning?
- How will it change the way you think about your behaviour and emotions?
- How?
- How did the NG change how you do things now?
- How did the NG help you?

Speech Bubble (external)

- Why would you tell another pupil to go into the NG?
- What do pupils learn in the NG?
- What do teachers learn in the NG?
- What might parents learn from the NG?
- What is not so good about the NG which could be changed?
- Who do you think would benefit most from the NG? Why? How?
- What do you think the benefits are?
- What are the outcomes of being in the NG (for your behaviour/ emotions and anything else?)
- What are the practical things that you think have helped you in the NG and how could these have been improved?

Appendix L: Procedure followed during process of data analysis (Smith, Flowers and Larkin, 2009)

Stage 1	First transcript read several times to develop familiarity. Preliminary interpretations and thoughts were noted in margin.
Stage 2	Reading and re-reading of transcripts, followed by making initial notes and points of interest (preliminary themes). Note taking included key descriptive comments and phrases, linguistic characteristics (e.g. hesitancy/ metaphor/ repetition) as well as more interpretative conceptual comments where I began to ask questions of the text (e.g. what does this description illustrate about pupils' understanding of their SEB development and NG?)
Stage 3	This stage involved a move away from working directly with the transcripts to working with the initial notes to develop emergent themes. Preliminary themes were recorded on post-it notes which were moved around to consider potential connections across emergent themes. During this process themes were identified which pulled together groups of sub-themes which organised into an early overview of themes. A certain amount of pruning occurred at this stage with myself working to maintain depth and complexity by focusing on the most important and interesting data. Themes reflected NG pupils' original words but also my own interpretations, understanding and knowledge of NGs.
Stage 4	Early themes and groupings were validated by checking the original transcript. Some themes were clustered together and given a name to describe the whole- a superordinate theme; for others an emerging theme may describe other themes and itself become the superordinate theme. Themes were written down under superordinate headings alongside the spoken words of NG pupils to show how they derived from the original data.
Stage 5	Process repeated for each NG pupil transcript- all 3 other pupils.
Stage 6	Iterative process whereby the preliminary analyses for each pupil were combined into a consolidated summary of master themes for the group. With a homogenous sample I was able to facilitate the analysis of patterns within the group. The cross-case analysis looked for differences as well as similarities, identifying connections and renaming themes as deeper understanding of the data was developed.

Stage 7	Analysis involved a selective process where preliminary themes were dropped if they did not directly relate to the research question.
Stage 8	A matrix of themes was developed whereby superordinate themes, split into themes, were written in a table alongside direct quotations for each pupil that supports the theme and superordinate theme (Appendix O). This allowed the development of an overview of each theme and their location within the text of the NG pupils.

Appendix M: Audit trail: example page of transcription

Line Reference	Emergent Themes	Original Transcript (italic font: researcher/ plain font: NG pupil)	Exploratory Comments (Yellow- descriptive comments Green- linguistic comments Blue- conceptual comments)
3.38		Now <i>someone said these look like stickers, but I'm not sure I understand exactly what these are for?</i>	
3.43	Choice	Oh yeah, these are our charts. Now where is mine (searching photograph), these are for when you finish your work you get a sticker and when you get so many stickers you get a choice out of the box or a reward. I got....I got a toy from a box. Five times!	Use of repetition- "I got....I got" - showing great enthusiasm Use of "everyone" - belonging to a collective group/ collective experience.
3.47	Structures aiding self-confidence	Oh wow. So you get a reward for working hard?	Comparison with previous learning experiences- now finishing work. Self-comparison.
3.52	Choice in activities	Yes, so it makes everyone try their best but I always get prizes now, because I always finish my work every single time now. I'm actually working really hard and well now.	
4.1	Different structures	So this is the quite area you were talking about. Where you go to calm down if you need to?	Use of word "we can also do..." - signalling choice element. Use of "we" rather than "I"
		Yeah, that's the table where we can also do work there as well. We can do puzzles and er, topic work there but I can't remember our topic.	
		That's Ok. So do you do your work on your own or with other children?	

4.7	<p>The dishes, now I do the dishes all the time.</p> <p><i>You do the dishes all the time! In the Nurture Group?</i></p> <p>Compatibility with home-similar structures</p>	<p>And at home, and I give the dogs a bath as well. M (pupil's dog) is the messiest dog in the world. She gets in the mud, she comes back, I grab her by the scruff of her neck, and then I put cold water and hot water together and wash it around, and then she gets out again I will try and wash her again by scruffing.</p> <p><i>So how often would you do the dishes in the Nurture Group?</i></p> <p>Ten times.</p> <p><i>Ten times?</i></p> <p>Every day, my teacher will say I wash them and then I put them back over there again and again. Until they are sparkly and the teacher will say that is a really good job.</p> <p><i>So do you like doing them?</i></p> <p>Mmmhmm.</p> <p><i>So this is the entrance when you first walk in?</i></p> <p>Responsibility in learning</p>
4.17		
4.21		
4.24		
4.28		

4.36	<p><i>The yellow one?</i></p> <p>Yeah.</p> <p><i>So sometimes you will go out the room to work- just outside it though?</i></p> <p>Yeah that is where I can work the hardest. And that there (looking at next photograph) is stuff I like, that construction toys and that.</p> <p><i>So what about this area?</i></p> <p>I go there to calm down and do my yoga to keep my calm spirit 'cause X (pupil's name) is quite annoying in the house.</p> <p><i>So you go there to calm down?</i></p> <p>Yes, I just go in there and cross my legs.</p> <p><i>What about this?</i></p> <p>Well there we chat- we have a carpet there now (pointing). Well all the chairs are in the circle and we all sit around and talk and she always asks how do you feel and I am always sitting there as I am sad all the time (pointing) and if X (pupil's name) is there, I get my angry side and always stare at him and get angry. And so then I just keep myself to myself. For example, I will then go and cook myself unless X (pupil's name) comes and wrecks it.</p>	<p>responsibility.</p> <p>Clash of personalities with pupil- barrier to activities? But adjoined with self awareness.</p> <p>Showing excitement and enjoyment through pointing-gestures.</p>	<p>Self awareness of learning- metacognition- what helps him learn?</p>	<p>Importance of quite space.</p> <p>Space used as compensatory measure/ avoidance.</p> <p>Clash with other pupil</p>	<p>increased own self regulation.</p> <p>Frustration- "quite annoying"</p>	<p>Importance of having quiet space- dedicated space</p>	<p>Use of "we" again.</p>	<p>Use of "always"- sense of consistency and structure.</p> <p>"she"- referring to NG teacher- asking how pupils feel.</p>	<p>Enhanced emotional literacy-</p>
4.42									
4.43									
4.47									
5.1									
5.5									

	<p>emotional vocabulary.</p> <p>Sense of frustration and anger when talking about other pupil.</p> <p>Choice of solitary activities to avoid confrontation.</p>	

Appendix N: The superordinate and main themes identified alongside supporting exemplar quotes extracted from transcribed interviews

Superordinate Theme	Themes	Examples of supporting quotes
Similarity/ Difference (with mainstream)	Structures	<p>Pupil E.S: "You get to play on the whiteboard as well so it's sort of like class but different at the same time."</p> <p>Pupil Z.M: "Yes, because sometimes I need that and you can't always get that in the classroom."</p> <p>Pupil Z.M: "It also lets me go somewhere to calm down- the tent. I can practice yoga there. You can't do that in the class."</p> <p>Pupil B.N: "It's different from other classes, but we are still working hard."</p> <p>Pupil C.C: "It's easier for me to learn in the smaller Nurture Group than the big classroom. You know when things are going to happen."</p> <p>Pupil C.C: "We all work together on the dishes."</p> <p>Pupil C.C: "...I like sitting with other children. You learn to take turns and stuff."</p> <p>Pupil C.C: "...sometimes I play myself and sometimes I play with other people."</p> <p>Pupil E.S: "Well, half of the children make it, wee..., there's a thing that tells you, well...well, a thing..and maybe it would be my turn. So we all do it together."</p> <p>Pupil E.S: "Think it is important to take the time to say good morning and pass the teddy to say good morning to everybody."</p> <p>Pupil B.N: "Well, we eat toast. And biscuits and drinks and that. And we all sit round the table together...and lots of people do jobs. Some people, well..., we all help each other but only two people do jobs. Only two people are allowed jobs at snack time."</p> <p>Pupil Z.M: "This is the eating table where we get snack or work together. Everyone sits together and I have made soup for the Nurture Group before and they all liked it apart from one person- but I think they were just jealous."</p>
Separation		<p>Pupil E.S: "Walking to the Nurture Group after lunch each day is good because you are in school, but the Nurture Group doesn't feel like school and its miles away from the classrooms."</p> <p>Pupil B.N: "It's a different space."</p> <p>Pupil Z.M: "It has things in it that you don't get in class, and, erm ...it's away from the main class so you can get away from everyone if you need space."</p> <p>Pupil Z.M: "It makes you feel special as you are lucky to be in the Nurture Group as only a few pupils get to be in it."</p> <p>Pupil C.C: "It's in a special bit of the school- away from all of other classes. It's hidden."</p> <p>Pupil C.C: "Everybody. I would show it to everybody- I would take it to show my class teacher sometimes but not</p>
Continuation (of links)	Mainstream	

<p>(links)</p> <p>Information sharing</p> <p>Home-school (links)</p> <p>Barriers</p>	<p>very often."</p> <p>Pupil Z.M: "These are for when you finish your work you get a sticker and when you get so many stickers you get a chance out of the box or a reward."</p> <p>Pupil E.S: "I went to the Nurture Group every Tuesday, Wednesday, Thursday and Friday. And then I only went two days...and then I just wasn't there anymore."</p> <p>Pupil B.N: "The charts are the same as we had in class for doing work and, er, for doing well. We also have a computer and a whiteboard in the nurture group which is the same. The other pupils from the classroom have visited the Nurture Group once, and, er [pause] I think they were really jealous of what we did in there because it is still different."</p> <p>Pupil C.C: "I would take it to show my class teacher sometimes, but not very often."</p> <p>Pupil E.S: "I miss being in it now [referring to the Nurture Group]. Not been a visit for ages."</p> <p>Pupil B.N: "Class teacher was just in my class- the Nurture Group teacher is in the Nurture Group."</p> <p>Pupil Z.M: "I get to take work in from home, to the Nurture Group or to the class teacher which makes me feel good. I did some work in my normal class and took it to the Nurture Group and got it finished really quickly."</p> <p>Pupil Z.M: "I wouldn't explain it to my teacher; I would explain it to my friends."</p> <p>Pupil Z.M: "And my dad helps me cook at home. And Mrs M [Nurture Group teacher] told me that if I keep on going I will be cooking all my life now and I will end up a really good chef."</p> <p>Pupil Z.M: "And sometimes you get to bring things in from home and work on them and show to other people. And sometimes I get to teach people how to do yoga and do that."</p> <p>Pupil E.S: "My mum would say that it has helped me. My mum says that I talk more at home and do more things because I know I can do them now. Dad just says that I take more time with things, like, er..., I take more time with the dishes at home because I enjoy doing them."</p> <p>Pupil B.N: "Emin, the teacher and all of us. We all help with the cooking, I like it. I made shortbread last week and took some home [laughs]"</p> <p>Pupil C.C: "There's lots of things we do in the Nurture Group that I do at home- like the cars. That's why I like playing with them in the Nurture Group."</p> <p>Pupil C.C: "And I do the dishes at home, because I am confident doing them and I know exactly what I am doing. I am good at the dishes and I wash and dry them."</p> <p>Pupil Z.M: "Everyone would- all children- older and younger. But only children that are ready to listen will get something out of it. Children that ready to listen and to do a little work."</p> <p>Pupil Z.M: "It's not learning, no. Because he stops me learning things some days 'cause he's always shouting or throwing books..."</p> <p>Pupil E.S: "She [referring to Nurture Group teacher] has to spend most of her time with the naughty children so I don't work with her all the time because I am not naughty."</p> <p>Pupil B.N: "I got on with most of the boys, but some of the boys were naughty and stopped us doing work in the Nurture Group. When they were naughty it is hard to think and concentrate. Mrs M [Nurture Group teacher] says that</p>
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		<p>sometimes the boys make my attention drift and I get, er, caught up in stuff that I shouldn't. So, erm..., some of the boys make it hard in the Nurture Group."</p> <p>Pupil C.C: "Sometimes the naughty boys mean that you have to do other stuff until the teacher is ready. Sometimes it gets in the way- naughty boys- and other times you just ignore them."</p> <p>Pupil E.S: "We always got a choice because we have learned to behave better."</p> <p>Pupil E.S: "Aye, you always get to choose after you have completed each job. And you don't get upset now, because you know you will always get a choice in the end. I used to get annoyed if I didn't get a choice in class..."</p> <p>Pupil C.C: "Not now, but I used to because I felt as if stuff was getting taken away from me and I didn't used to get choice in my class because I was a slow learner but now I am a fast learner."</p> <p>Pupil B.N: "Well, we just pick who wants to."</p> <p>Pupil B.N: "You get a choice of games and activities and you can choose who you want to do these with. Before this, I had to work with the same people all the time in the same group which was boring."</p> <p>Pupil Z.M: "And I get to play with what I want all the time now as I finish my work all the time now."</p> <p>Pupil Z.M: "She doesn't tell you what to do. She talks things through with you and helps you to understand more and then you see how to talk things through with other people."</p> <p>Pupil E.S: "She helps with everything, er, maths, drawing, language. Erm, I don't know. She is the best thing about the Nurture Group as she gives me lots of time and helps me to understand things. She doesn't shout at all."</p> <p>Pupil B.N: "[laughing], well...she's lovely...yeah, she helps me."</p> <p>Pupil Z.M: "She keeps us safe and tells us what to do for work. And although I may want to do other stuff, I do what she asks me to do as she is the best teacher that I have had. So I listen to her."</p> <p>Pupil Z.M: "Well, it's Mrs M [Nurture Group teacher] who tells me what to do but also keeps me in control."</p> <p>Pupil Z.M: "I think it [referring to the Nurture Group] has just the right number of teachers and pupils in it."</p> <p>Pupil C.C: "You can always go to Mrs M [Nurture Group teacher] and she always has more time for you."</p>
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Appendix O: Superordinate theme: Continuation (of links)

Superordinate theme: Continuation (of links)

Theme: mainstream links

The implicit link between the mainstream class and the NG was evident in all pupils' accounts. In terms of the desire to maintain continuity with the mainstream class, NG pupils felt that this was reflected in a level of similarity with certain features and mechanisms which impacted profoundly on self-confidence, motivation and self-efficacy.

For pupil C.C an increase in self-confidence was evident through his self-comparison between how he thought about himself (and his learning) previously to his time in the NG;

C.C: *That's the books and that is where I do most of my good work. I do better work in the NG than in class.*

I: *And what type of work would you put in your book? What would it be? And who would you show it to?*

C.C: *Everybody. I would show it to everybody- I would take it to show my class teacher sometimes, but not very often.*

And later in his PVT;

Pupil view template (thought bubble): How did the NG help you?

C.C: *It has made things better for me. Because I like the way things have changed. I like the way that school feels easier and my work is easier for me know. I like the school a lot better after the NG. I was in primary four before I started the NG and now I love it.*

This idea of self-comparison was also acknowledged by pupil Z.M's where his use of language indicates a moving forward in terms of both his work achievements, but also his own confidence and self-esteem.

I: Now, someone said these look like stickers, but I'm not sure I understand exactly what these are for?

Z.M: Oh yeah, these are our charts. Now where is mine? [searching through the photograph] These are for when you finish your work you get a sticker and when you get so many stickers you get a choice out of the box or a reward. I got...I got a toy from a box. Five times!

I: Oh wow! So you get a reward for working hard?

Z.M: Yes, so it makes everyone try their best but I always get prizes now, because I always finish my work every single time now. I'm actually working really hard and well now.

It was notable that there was a strong relationship between certain features in the NG and SEB development. The diamond ranking activity confirmed those features that were perceived as fundamental in shaping and developing pupils SEB development. A central role of the structures-circle time, library, self-registration charts, computer, cooking/dishes, reward / achievement books- was highlighted. It appears that achieving goals in these areas boosted NG pupils' self esteem and self worth. Crucially, only one of these features (cooking/dishes) would not be routinely available to mainstream pupils, begging the question as to what is it about NGs that facilitate these processes and pupils SEB development? These findings are consistent with those of Bishop and Swain (2000a) who found a similarity in mainstream class features and NGs. From the superordinate theme (similarity/difference) perhaps it has been the degree of distance and separation from the mainstream class

that has strengthened the relationship between social and emotional factors of learning and these features. I also conceptualised pupil Z.M's excitement and the greater fluency with which he spoke about the reward charts (and pupil C.C spoke about achievement books) as going beyond motivational features but a result of the familiarity with those features. It seemed as though changes in SEB skills were influenced by what NG pupils brought to the NG in terms of their prior experiences. This reduced disjunction between the way the mainstream class systematically operated in terms of behavioural systems and how the NG operated, suggests further research is required to fully understand why such features seem more effective in NGs?

Theme: information sharing

Extracts from pupils touched on constructs described by other authors in relation to information sharing and maintaining a link with the mainstream class. The idea of severed communication links was captured;

C.C *...I would take it to show my class teacher sometimes, but not very often."*

And also;

E.S: *But I went to the NG every Tuesday, Wednesday, Thursday and Friday... and then I only went for two days.*

I: *And then did it go down to one day? Did you start going for only one day then?*

E.S: *No. Two days and then I wasn't there!*

I: *So, you went back in class full time then?*

E.S: *Yup. I miss being in it now. Aye¹. Not been a visit for ages.*

The above quotation indicated that the communication between the mainstream class and the NG- whether it is sharing information or regular visits- was not perceived as a positive experience. Pupils described a number of practical suggestions in relation to strengthening this link. Some of the PVTs described different strategies to close the gap between the desire to establish close links with the mainstream class whilst maintaining a degree of separation as a NG pupil. One pupil described a phased re-introduction to his mainstream class and regular invitations to mainstream pupils to see “**how** the NG pupils (emphasis added) work and learn”. Another pupil highlighted the need for more planned sharing of information- such as a journal or workbook that journeys with pupils through both learning environments. The individual detail in pupils’ accounts powerfully articulated the importance of maintaining links with the mainstream class and how this inter-relates with pupils’ experiences and confidence in social relationships between mainstream and the NG. These concerns and suggestions stand in contrast to existing NG literature which stress a gradual transition process from NGs to full time mainstream classes (Cooper and Lovey, 1999) or a gradual fading of the NG complimented with individual packages (Cooke et al., 2008). However, pupils’ accounts provided agreement with a broadly recognised concern of the challenge of organising liaison time with NG and class teachers (Binnie and Allen, 2008) - thereby improving communication between NG and mainstream staff (Cooper and Tiknaz, 2005). However, this recognised concern by Cooper et al., (ibid) relied upon points of dissatisfaction raised by mainstream staff and NG staff; whereas the present study it was the pupils themselves that highlighted the nature of existing communication to be a concern. Although NG pupils were not able to provide further detail or explanation how this perceived lack of a shared approach affected their SEB development, it does highlight that pupils

perceived NGs to be more effective when clear streams of communication are established.

Theme: home-school links

The meanings attached to home-school links reflect several different aspects of what pupils regarded as the function of the NG- establishing a link with home.

It was clear that pupils attributed the meaning of the NG as revolving around a connection with home. For instance;

Z.M: *This is still the NG and this is all the cooking stuff, and er, - not sure what else to say now?*

I: *[laughs] So what have you cooked? Lots of nice things?*

Z.M: *Yeah. Soup.*

I: *Soup! Wow! When did you do that?*

Z.M: *I did it at home and in here. We have made lots of things in the NG- muffins, biscuits, chocolate biscuits, er, pancakes.*

I: *So, how often would you try and do the cooking Z.M? (pupil's name)*

Z.M: *Well, I always try and do it every day in the NG. At Christmas time, I am planning to make soup for my family. And I've asked Mrs M (NG teacher) if I can make soup in the NG and she said yes I can one day. And she will love it. I made it myself from scratch.*

I: *Fantastic!*

Z.M: *And my dad helps me cook it at home. And Mrs M (NG teacher) told me that if I keep on going I will be cooking all my life now and I will end up a really good chef.*

Similar views of the importance of home-school links in increasing pupils' self confidence and engagement in learning also appeared to transcend pupils' perspectives and indicated that their parents or carers also recognised these links as a defining feature of pupils' SEB development;

Pupil view template (speech bubble): What might parents learn from the NG?

E.S: *My mum would say that it has helped me. My mum says that I talk more at home and do more things because I know that I can do them now. Dad just says that I take more time with things, like, er...; I take time with the dishes at home because I enjoy doing them.*

I: *You enjoy doing the dishes! I like your honesty [laughs]*

E.S: *Oh, but we have a washing thingy² that does the dishes anyway...a machine thingy, but we don't really use it and me and dad just do them all the time.*

I: *Oh, well, that's handy.*

E.S: *Aye¹.*

For parents and carers it was clear that they perceived and experienced many different SEB dimensions from links between the NG and home, rather than just the continuity and familiarity of activities. Conversely, this strong connection between pupils' views of increased self confidence and parental recognition of improvements in SEBD is not reflected in the current NG literature. More specifically, NG pupils did not experience an increase in parental involvement or relationship with the NG or school (as suggested by Colwell and O'Connor, 2003). Rather, an increase in parental relationships/ links appeared to remain at the level of the parents becoming more aware and positive about pupils' behaviour (cf. March and Healy, 2007).

Transcript Extract Notation

...a pause in the NG pupils' accounts

[] additional gestural or behavioural observations

¹Aye- Scottish term taken to mean "yes"