



Department
for Education

Study of Early Education and Development (SEED): Study of the quality of childminder provision in England

Research report

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Executive summary

Background to the study

The Study of Early Education and Development (SEED) is a major study evaluating early education in England including the introduction of a funded entitlement to early education for two-year olds from disadvantaged families in England and Wales. Childminders play a huge role in provision for this age group but previously little in depth research has been done on them. This study examines the key characteristics of childminding provision and looks at:

- The characteristics and processes of childminder settings and what childminder quality looks like in practice
- The key components of process and structural quality for early years provision in childminder settings
- The relationship between the structural characteristics of childminder settings and the process quality of care and education they offer

Methods

Quality of child care was measured in two ways.

1. **By observing process quality** (i.e. what actually occurs in the setting). This includes children's interactions with caregivers and other children, and particular activities such as language stimulation and health and safety measures. Two multidimensional scales, the Family Environmental Rating Scale-Revised (FCCERS-R)¹ and the Sustained Shared Thinking and Emotional Wellbeing Scale (SSTEW) were used to measure process quality.
2. **The structural characteristics of the setting and the characteristics of the caregivers**, (for example, the child: adult ratio, the size of the group of children, and the formal education and training of the caregivers Vandell & Wolfe, 2000; Melhuish, 2004). This information was collected by interviewing the caregiver using a set of structured questions.

A sample of 99 childminders spread across five regions in England were selected in order to get an approximation to the diversity of contexts in which childminders work. As a result, while this is a good approximation to childminders' characteristics, it should be borne in mind that estimations to all childminders cannot be made.

¹ FCCERS is specifically designed for use in home-based childcare settings

Childminders settings observations and questionnaires were carried out from September 2014 to March 2015.

The analytical strategy started with descriptive statistics for the childminders' settings as well as results for the process quality measures. Next, the relationships between structural quality indicators, caregiver characteristics and process quality measures were examined. Subsequently, statistical analyses allowed us to look for what factors (if any) predicted the process quality scores. Finally, we explored the structural and caregiver characteristics that differentiate: 1) outstanding process quality provision; 2) good and above process quality level and 3) adequate and above from inadequate environmental quality.

Key findings

Analyses reveal three factors associated with process quality in childminder settings:

1. the adult-to-child ratio
2. the frequency of training and Quality Improvement Programme or Quality Assurance Scheme support, and
3. the years of experience as a childminder.

Adult-to-child ratio during observation partly explained the quality differences but only at the bottom end of the quality distribution – a setting with a lower adult-to-child ratio during observation was more likely to have an 'adequate' or above quality score, rather than a 'poor' rating. Adult –to-child ratio did not distinguish between settings rated above average on the quality distribution. This is likely to be linked to the legal restriction on the number of children childminders can look after.

Early years training and support through Quality Improvement Programme or Quality Assurance Scheme (QIP/QAS) involvement positively influenced childminder quality. The QIP/QAS participation involves extra training, advice and guidance and extra professional support. These professional development activities clearly helped as participating in such professional development distinguished childminders, with a 'good' rating, from those with a lower quality rating.

In looking at the top of the quality distribution- what additional factor(s) distinguish outstanding settings from the rest – only **years of experience** made that additional impact. At the upper end of the quality distribution childminders with more years of experience were more likely to receive an outstanding quality rating. More experienced childminders were more likely to have received more in-service training and had participated in a Quality Improvement Programme or Quality Assurance Scheme.

Summary of Findings

Overview of childminders' characteristics and key practices put in place

Childminders' background

- Childminder's experience in working in early years and as childminders varied from less than a year to thirty plus years.
- Almost all childminders in the study had other jobs before becoming childminders. One third had previously worked in child care related employment.
- The most common qualification relevant to working with children was a Level 3 diploma (58%) with most childminders visited having a Level 3 or higher qualification (92%).

Characteristics of childminders' settings

- Almost half of those visited worked with at least one assistant or co-childminder².
- Most assistants or co-childminders had up to five years of experience with a substantial number having six to ten years of experience working in the early years' sector.
- Half of the assistants or co-childminders had a Level 3 qualification relevant to working with children, and a quarter had no formal education related to working with children.

Provision of care and education: offer and current take up

- More than half of childminders had six Ofsted registered places and one fifth offered 12 registered places when employing assistants or working with another registered childminder.
- The age of children in settings varied from 1 to 15 years³. Most childminders cared for babies, toddlers, pre-schoolers and school aged children.
- Almost two thirds of childminders cared for children from a one-parent home.
- Childminder hours were typically from 8:00 am or earlier, to 5-6pm weekdays. Only a few offered weekend and overnight care. The childminders visited represented a typical social mix of England.

Key processes in place in childminding settings

- Half of childminders were participating in a quality improvement programme or a quality assurance scheme (QIP/QAS).
- The level of understanding of the Early Years Foundation Stage statutory framework was self-reported as very good.

² A co-childminder is a childminder working alongside another childminder

³ Note: most observations of process quality were carried out when only children in the early years' age range were present. The children of school age attended for out-of-school care.

- Monitoring children's progress was usual. Half made daily observations on children's progress to plan children's learning, in line with the EYFS statutory framework. Of the remaining half, many monitored children at least once a week.
- The majority of childminders monitored children's progress using Development Matters and/or Early Years Outcomes documents. One third had their own system to track children's progress based on the EYFS.
- Three quarters of childminders were registered with the local authority to deliver funded places for two-year-old children This is a high percentage (especially when compared to the 2013 Childcare Survey) and needs to be taken into account when considering the findings of this report,
- Almost half of childminders were providing one or more funded early education places for three- and four- year-olds. Again this is a high percentage and should be taken into consideration when considering the findings of this report.
- Almost all childminders were open to care for children with Special Educational Needs or Disabilities (SEN/D). One fifth cared for a child with SEN/D.
- Nine out of ten childminders attended CPD training - other than the mandatory safeguarding and first aid - at least twice a year.
- Local authority support (i.e. training, advice and guidance, setting visits as support) varied, half had some support and the other half did not.
- The majority of childminders used the Internet to support their childminding work.

Process Quality

- The overall average score was 'Good (5)' for the two quality measures with a close to normal distribution (the scores range from 1- Inadequate up to 7- Outstanding).
- Some childminders' settings received an outstanding quality score: 11% on the FCCERS-R quality measure and 16% on the SSTEWS quality scale.
- Very few had an inadequate or minimal overall quality score: 1% and 7% respectively on the FCCERS-R; 3% and 11% respectively on the SSTEWS quality scale.
- The FCCERS-R sub-scale with the highest average score was 'Interaction'.
- The FCCERS-R sub-scale with the lowest average score was 'Activities'.
- The SSTEWS sub-scale with the highest average score was 'Supporting and extending language and communication.'
- The SSTEWS sub-scale with the lowest scores were for the sub-scales 'Supporting learning and critical thinking' and 'Assessing learning and language.'

Relationships between process quality and structural quality

Predictors of process quality measures by structural quality indicators and caregiver characteristics

- Participation in networks providing a Quality Improvement Programme or Quality Assurance Scheme (QIP/QAS) was associated with better quality (both scales).
- Participating in specialised continued professional development (CPD) (at least twice a year) was associated with higher overall quality (both scales).
- Experience of being a childminder is a significant asset. More experienced childminders tended to display better sustained shared thinking and emotional wellbeing environments for the children under their care. Childminders with more experience tended to have higher SSTEWS scores.
- Early years' training frequency and QIP/QAS involvement were separately correlated to the FCCERS-R average score.
- QIP/QAS participation showed a higher association with higher average SSTEWS scores than the frequency of early years training.

Effects upon different ranges of process quality

- Outstanding childminding settings (scoring 6 and above on the SSTEWS scale), tended to be led by more experienced childminders.
- Participation in a Quality Improvement Programme or Quality Assurance Scheme (QIP/QAS) was associated with increased chances of a score of 5 or above (good, very good or excellent) for both scales.
- The adult-to-child ratio during the observation and the childminder's frequency of training differentiated adequate and above settings from those with a minimal or inadequate quality score (i.e. a more favourable adult-to-child ratio [lower] and more frequent training was associated with scores that were adequate and above).

1 INTRODUCTION

This report presents the findings of a study of quality of provision for children in registered childminding settings. It is a specific element of the longitudinal research project the Study of Early Education and Development (SEED) a major new study commissioned by the Department for Education (DfE) and undertaken by NatCen Social Research, the University of Oxford, 4Children and Frontier Economics. Below we summarise the policy context and research aims.

1.1 Policy Context

In September 2013, children aged two and in the 20 per cent most disadvantaged households in England became eligible for 570 hours of funded early education per year (often taken as fifteen hours per week for 38 weeks of the year). From September 2014 this funded provision was extended to include all two-year-old children in the 40 per cent most disadvantaged households in England. This provision for disadvantaged two-year-olds builds on the existing universal entitlement of 570 hours of funded early education for three- and four-year-olds, available to all children from the term after their third birthday.

The possible consequences of this change in policy is being assessed by the Study of Early Education and Development (SEED) an eight-year study following approximately 6,000 children across England from the age of two, through to the end of Key Stage 1. The study aims to assess the impact of early education on children's school readiness and longer-term outcomes, as well as its impact on the most disadvantaged children.

Childminders have an important role in the delivery of early education and child care in England. Ofsted data in August 2014 indicated that there were 50,416 childminders on the Early Years Register (EYR) with the capacity to provide 263,129 child care places for children under the age of 8 (around 21% of places available⁴). Currently a childminder in England can care for three children under the age of 5 - one under the age of 1- and a total of six children under the age of 8. Childminders may care for four children under 5 years old in exceptional circumstances to maintain continuity of care. Within a childminding setting these numbers of children may increase pro rata as the number of caregivers increase. This may happen where there are co-childminders or assistants working in the childminding setting. In order for a childminder to be able to offer funded places for two-year-olds, childminders must be rated 'good' or 'outstanding' by Ofsted. In exceptional circumstances, it is at the discretion of the local authority (LA) to offer funded two year-old provision when the rating is less than good. This means some childminders who would like to offer

4 Ofsted (2014) Registered child care providers and places in England March 2014 - Key Findings (<http://www.ofsted.gov.uk/resources/registered-child-care-providers-and-places-england-december-2008-onwards>)

provision for two-year-olds are currently ineligible.

Government policy is clear that Ofsted is the sole arbiter of quality and that local authorities have a statutory duty to work with those childminders that are rated less than good. In addition Childminder Agencies who are inspected by Ofsted have a statutory role in providing professional development, support and advice to childminders through their quality assurance and improvement programme.

Childminders can access support, professional development and guidance from a range of possible sources which will vary from area to area. These possible sources include:

- Local authority co-ordinators, development officers, and/or quality assurance officers: either employed directly by the local authority or as a contracted service, for example, through the Professional Association for Child care and Early Years (PACEY).
- Local authority training, training opportunities provided by sector organisations, for example 4Children, National Children's Bureau and commercial organisations.
- Childminder networks as organised by co-ordinators may be a source of support with regular meetings to share ideas, practice and seek advice.
- Professional associations, including PACEY and the Pre-School Learning Alliance (PsLA), offer help to members in accessing training, advice and guidance.
- Children's Centres may hold childminder groups providing opportunities to meet with peers and colleagues in the early years sector, to share information and advice while children used the play and stay facilities. Whilst in the past these groups were often facilitated by a local authority co-ordinator this is now less common.
- Childminder agencies have a statutory duty to provide their member childminders with ongoing advice, support, continuing professional development as well as to quality assurance.
- The internet may also be used for information.

Another strand of the SEED study based on 20 in-depth interviews with childminders, found that childminders drew on a variety of sources to maintain and improve the quality of their provision: quality standards and support provided by local authorities, participation in childminders networks, access to CPD, as well as feedback from Ofsted inspections (Callanan, 2014).

1.2 Why Quality is Important

Generally research on the effects of early child care and education quality has indicated that high process quality child care and education (e.g. child-caregiver relationships and interactions) is prospectively related to cognitive and language development (Loeb et al, 2004) and more social competence and less behaviour problems in children (Burchinal et

al, 2008; NICHD ECCRN, 2006; Peisner-Feinberg et al, 2001), with effects sometimes even lasting into adolescence (Vandell et al, 2010) and beyond (Melhuish, 2011).

Quality is critical in determining the direction, strength and persistence of the effects of Early Childhood Education and Care (ECEC) on children's development. It has been argued that, especially for the birth to three age group, the quality and stability of care are particularly crucial (Anders, 2013; Burchinal et al, 2009).

International research has shown that high quality child care provides children with warm and positive relationships with their child care providers, a safe and healthy environment and opportunities for children to learn (Shonkoff and Phillips, 2000). On the basis of their very thorough review covering the birth to five age range, Zaslow et al (2010) concluded that the research on young children's exposure to ECEC identified an increase in positive outcomes (and in some studies, decrease in negative outcomes) when children attend high quality early care and education programme for more time. This was the case for both cognitive and social emotional outcomes. Moreover, more sustained exposure to high quality care has been found to narrow the gap on measures of achievement between children from low income and higher income households.

The Effective Pre-School, Primary and Secondary (EPPSE) study showed that preschool quality and effectiveness predicted child outcomes consistently over time, with continuing effects on academic attainment lasting up to the age of 16 (Sammons et al, 2011; Sammons et al, 2014a, 2014b, 2014c, 2014d; Sylva et al, 2011). Similar results also emerged in a parallel study of over 800 children in Northern Ireland - the effective pre-school provision in Northern Ireland (EPPNI) project. Those who had attended high quality preschool were 2.4 times more likely to attain the highest grade in national assessments at age 11 in English, and 3.4 times more likely in mathematics, than children without preschool (Melhuish et al, 2001; Melhuish et al, 2002a; Melhuish et al, 2002b).

While people working in early childhood education and care hold varying views on what makes up programme quality, two broad dimensions have been identified consistently as critical facilitators of children's development and learning. They include

(a) process quality, which includes the quality of the curriculum and pedagogical practices, and supporting positive relationships and children's emotional development; and
(b) the quality of structural aspects of child care (e.g, adult-child ratios, caregiver qualifications, group size and characteristics of the physical space) (Early et al, 2007). Measures of the global quality of settings take account of a wide spectrum of quality dimensions, including process as well as structural aspects of the environment.

Structural and process quality indicators are often related. For example, the structural variable caregiver training is frequently associated with process quality as found in the EPPE study in England (Sylva et al, 1999) and the EPPNI study in Northern Ireland (Melhuish et al 2006).

In this study, information about these aspects of quality of provision and other structural and caregiver characteristics as well as process quality was collected through observations and interviews with childminders working in different regions of England.

1.3 Aims of the Study of Childminders within the SEED Research

Following the recent changes in the provision of funded early education being extended, this study was commissioned to shed light on the characteristics of provision, including quality of early care and education, as provided by childminders in England.

The main objectives of this study were to explore:

- What are the characteristics and processes of a childminder setting and what does childminder quality look like in practice
- What are the key components of process and structural quality for early years provision in childminder settings
- The relationship between the structural characteristics of a childminder setting and the process quality of care and education they offer

2 METHODS

The quality of child care has been measured in two main ways. The first was by observing process quality i.e. what actually occurs in child care settings - children's interactions with caregivers and other children, particular activities such as language stimulation and health and safety measures. To gather information about process quality we carried out observations in childminders' homes. The second set of indicators comprises structural aspects of the child care setting and characteristics of the caregivers. These include, for example, the child: adult ratio, the size of the group of children, and the formal education and training of the caregivers. Data on structural dimensions of quality was obtained using a questionnaire for childminders, completed after the observation had finished.

2.1 Procedure and Measures

Process quality

Using two related instruments, the Family Child Care Environment Rating Scale-Revised (FCCERS-R; Harms, Clifford & Cryer 2007) and the Sustained Shared Thinking and Emotional Wellbeing Scale (SSTEWS); Siraj, Kingston & Melhuish, 2015) we conducted observational assessments of the quality of 99 childminding settings.

The FCCERS-R contains 38 items, which assess 7 subscales of home-based care and education as follows:

- I. Space and Furnishings (e.g. furniture for care, play, learning, display for children),
- II. Personal Care Routines (e.g. health and safety practices),
- III. Listening and Talking (e.g. using books, helping children understand the language),
- IV. Activities (e.g. dramatic play, active physical play),
- V. Interaction (e.g. children's interactions supervision of play and learning),
- VI. Programme Structure (e.g. schedule, provisions for children with disabilities), and
- VII. Parents and caregiver provision (e.g. provisions for parents, opportunities for professional development).

-
- Since childminders enrol a wide age range of children, this scale was designed to assess programmes serving children from birth through school-agers, up to 12 years of age, (including the childminder's own children if present).
-
- The SSTEWS Scale was developed over two years and published in March 2015. It contains five sub-scales related to two developmental domains:

Domain A - Social and emotional wellbeing, with two sub-scales related to this domain:

1. Building trust, confidence and independence and
2. Social and emotional well-being;

Domain B - Cognitive development, with three subscales pertaining to this domain:

3. Supporting and extending language and communication,
4. Supporting learning and critical thinking and
5. Assessing learning and language.

- This instrument was designed to observe early years' provision for children from two years up to six years old.
- Each of the sub-scales within the FCCERS-R and the SSTEW comprises items scored on a 7-point scale, where 1=inadequate, 3=minimal, 5=good and 7=excellent. The score of the general scale and sub-scales represent the average of the items that compose them. The ratings are based on a minimum of a two-and-a-half-hour/ three-hour observation in one childminder's home and a set number of interview questions to gather information on indicators that could not be observed.

It was decided to use the FCCERS-R because it is the measure most commonly used both internationally and in England in evaluations of home-based child care and early education and has high levels of inter-rater reliability. For this study we conducted a test for assessing its dependability and obtained a high level of internal consistency for both the FCCERS-R and the SSTEW average total scores within this specific sample (Cronbach's alpha=0.911 and .912, respectively). Also for the scales inter-rater reliability was very high (over 90%).

A significantly strong correlation was found between the FCCERS-R and the SSTEW total scores ($r = 0.84$, $p < .01$). This correlation shows that the two scales are gathering information on related aspects of quality. While the FCCERS-R scale does assess some interactional aspects and listening and talking indicators, SSTEW was particularly designed to assess details of interactions such as sustained shared thinking processes as well as the behaviour fostering emotional wellbeing.

The structure of the two environmental scales is presented on the following pages and one example of an individual item is shown in the Appendix A.

Structural quality and caregiver characteristics

In addition to the environmental quality assessment, we administered a supplementary questionnaire with each childminder in the study to gather additional information about the childminder's background, programme characteristics and key processes in place in the setting. The questions covered the following topics: staff qualifications, professional development activities, Early Years Foundation Stage (EYFS) statutory framework

knowledge, age ranges catered for and hours offered, number of children under care, delivery of free early education to 2, 3 and 4 year olds, monitoring children's progress, assessment and working with children with special educational needs and disabilities (SEN/D). [See Appendix B for the full version of the questionnaire]. The interview took approximately 30-40 minutes to complete.

Table i Overview of the Subscales and Items of the Family Child Care Environmental Rating Scale (FCCERS-R)

<p>I. Space and furnishings</p> <ol style="list-style-type: none"> 1. Indoor space used for child care 2. Furniture for routine care, play and learning 3. Provision for relaxation and comfort 4. Arrangement of indoor space for child care 5. Display for children 6. Space for privacy 	<p>III. Listening and talking</p> <ol style="list-style-type: none"> 13. Helping children understand language 14. Helping children use language 15. Using books 	<p>V. Interaction</p> <ol style="list-style-type: none"> 27. Supervision of play and learning 28. Provider-child interaction 29. Discipline 30. Interactions among children
<p>II. Personal care practices</p> <ol style="list-style-type: none"> 7. Greeting/departing 8. Nap/rest 9. Meals/snacks 10. Diapering/toileting 11. Health practices 12. Safety practice 	<p>IV. Pre-school activities</p> <ol style="list-style-type: none"> 16. Fine motor 17. Art 18. Music/movement 19. Blocks 20. Dramatic play 21. Math/number 22. Nature/science 23. Sand and water play 24. Promoting acceptance of diversity 25. Use of TV, video, and/or computer 26. Active physical play 	<p>VI. Programme Structure</p> <ol style="list-style-type: none"> 31. Schedule 32. Free play 33. Group time 34. Provisions for children with disabilities
		<p>VII. Parents and provider</p> <ol style="list-style-type: none"> 35. Provisions for parents 36. Balancing personal and caregiving responsibilities 37. Opportunities for professional growth 38. Provisions for professional needs

(Harms, T., Clifford, M. & Cryer, D. 2007: 13)

Table ii Overview of the Subscales and Items of the Sustained Shared Thinking and Emotional Wellbeing Scale (SSTEWS)

<p>Subscale 1. Building trust, confidence and independence</p>	<p>Subscale 3. Supporting and extending language and communication</p>	<p>Subscale 5. Assessing learning and language</p>
<p>1. Self-regulation and social development</p>	<p>5. Encouraging children to interact with others</p>	<p>13. Using assessment to support and extend learning and critical thinking</p>
<p>2. Encouraging choices and independent play</p>	<p>6. Staff actively listen to children and encourage children to listen</p>	<p>14. Assessing language development</p>
<p>3. Planning for small group and individual interactions/ adult</p>	<p>7. Staff support children's language use</p>	
	<p>8. Sensitive responsiveness</p>	
<p>Subscale 2. Social and emotional well-being</p>	<p>Subscale 4. Supporting learning and critical thinking</p>	
<p>4. Supporting socio-emotional wellbeing</p>	<p>9. Supporting curiosity and problem solving</p>	
	<p>10. Encouraging sustained shared thinking through storytelling, sharing books, singing and rhymes</p>	
	<p>11. Encouraging sustained shared thinking in investigation and exploration</p>	
	<p>12. Supporting concept development and higher-order thinking</p>	
<p><i>(Siraj, I., Kingston, D. & Melhuish, E. 2015: 59)</i></p>		

2.2 Sample

The five sampling areas represent the diversity of regions in England - inner city, urban and rural areas as well as a mix of affluent and deprived areas. The aim was to complete 20 observations in each area. Childminders' contact details were sourced from local authorities' early years help directory, child care information, Community Information Service or Family Information Service websites. Introductory letters were sent out to all selected childminders outlining the purpose of the study, inviting them to take part in the research, and offering an incentive to do so. A week later, the lead researcher called the selected childminders to address any queries or concerns regarding the study and to ensure their consent. The purpose of the study was explained in detail to childminders so as to be sure they were well-informed before making their decision on whether or not they wanted to participate. For all participants in the study, an informed consent was obtained before proceeding any further.

In some areas, key informants collaborated with the recruitment of participants by spreading the word about the SEED research project and this specific study.

Each childminder was given an incentive of a £20 gift card and a voucher to attend any 4Children event or training free of charge.

Some over- and under-sampling occurred because of time constraints to complete the observations within the time frame available. The FCCERS-R and SSTEW observations were carried out in 99 childminders homes in the period of September 2014 to March 2015. The final sample of childminders for the five areas can be seen in Table iii.

Table iii. Childminder sample by region and urbanity

Region	n
North West	20
North East	20
Midlands	20
London	14
South	25
Total	99

This sample of childminders, whilst gathered to obtain information of childminders working in diverse contexts, does not allow the study to make probabilistic inferences to the entire population of childminders in England. Nonetheless, it does give a good "approximation" to childminders' characteristics and the processes that operate in childminder settings as well as the environmental quality of provision.

The one requisite for selecting childminders was that they had to be caring for at least one child aged 2-6 years so as to apply the SSTEW scale, and that the observations covered childminders with different characteristics such as: those caring for a small number of children vs those caring for a larger number of children; those caring for children across a wide and narrow age range; those with more and less experience.

2.3 Analytical Strategy

The analytical strategy started with descriptive statistics for the childminding settings based on items included in the supplementary questionnaire as follows:

- The average scores for the two measures of process quality were computed, including the overall scale and the individual sub-scales averages.
- Next the relationships between structural quality indicators, caregiver characteristics and process quality measures for home-based child care settings were examined in an effort to isolate the structural and caregiver characteristics that predict the process quality for these settings. We used Pearson correlation coefficients, cross-tabulations and t-test for independent samples to compare the average scores means for different groups of childminders.
- Subsequently, a series of multiple linear regression analyses were undertaken to look at predictors of the overall scores for the two process quality measures.
- Finally, the structural and caregiver characteristics that differentiate: 1) outstanding process quality provision; 2) good and above process quality level and 3) adequate and above from inadequate environmental quality were considered. Binary logistic regression analysis was conducted to account for these differences.

IBM SPSS version 22 was used to analyse the data.

3 RESULTS

This section looks at the data on the characteristics of childminders and the settings. The connections between process quality and the structural characteristics of childminding settings as well as the quality of childminders were examined. Next predictors of process quality were investigated, and finally, we compared groups of childminders with excellent scores with those that did not get an excellent score to identify structural and caregiver characteristics related to these two groups of settings. Two additional similar analyses were completed comparing on the one hand, childminder settings rated 'good' and above with the rest and on the other hand, settings rated adequate and above vs. minimal and inadequate.

3.1 Structural quality: Overview of Childminders' Characteristics and Key Practices in Place

3.1.1 Background

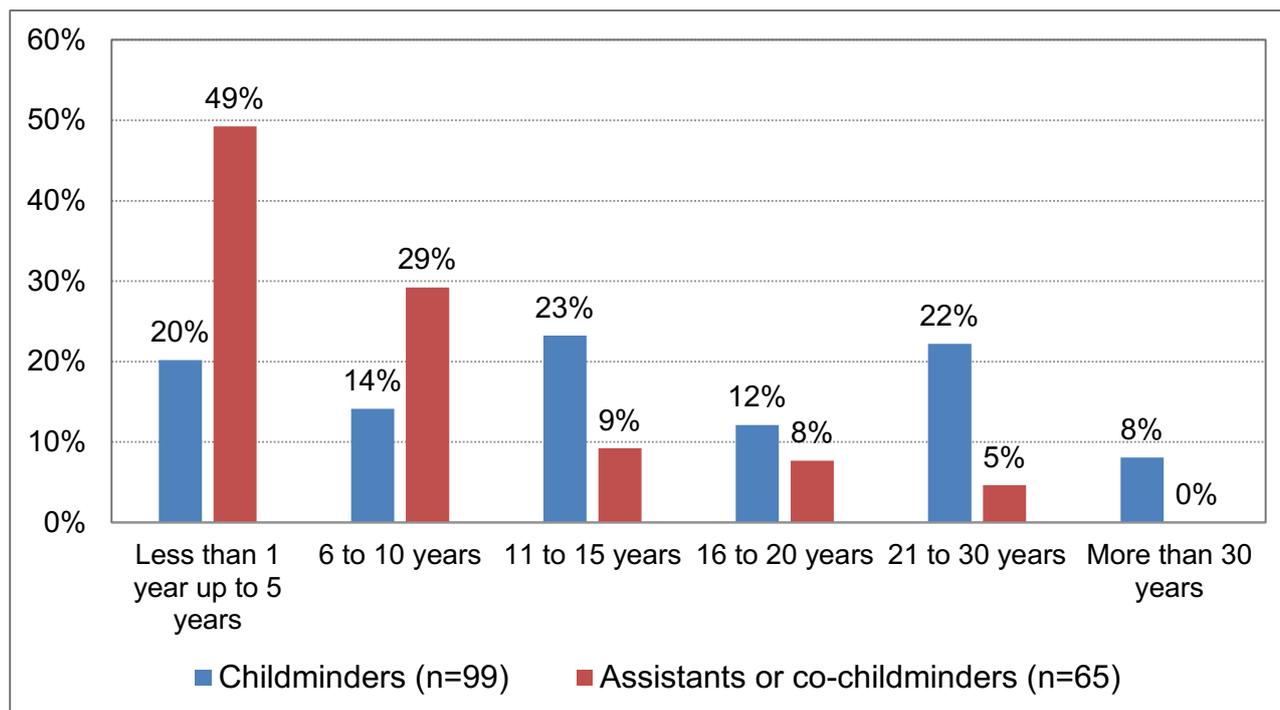
Years of experience working in early years and as a registered childminder

The number of years of experience working in early years as well as a registered childminder was very diverse. On average, they were registered as childminders for 11 years ($SD^5 = 10$ years) and worked in the early years sector for 15 years ($SD = 8$ years). The range of years of experience as a registered childminder varied from just a few months to thirty two years.

One fifth of childminders (20%) and half of assistants or co-childminders (49%) had less than one year up to five years of experience working in the early years' sector. On the other end of the distribution, it was observed that 30% of childminders and 5% percent of assistants or co-childminders had more than twenty years of experience working in the early years' sector. (See Figure 1)

⁵ SD stands for standard deviation.

Figure 1. Years of experience working in the early years sector



58% of the sample reported that their whole experience in early years was solely working as registered childminders; they had no previous experience in the sector. Amongst the 42% who performed other roles within the early years sector before becoming a childminder, this experience varied in its extension: 1 to 4 years (13%), 5 to 9 years (8%), 10 to 14 years (14%) and 15 or more years of experience (7%).

Work experience

Many childminders were working in child care prior to becoming a childminder - 36% having been involved in early education or child care work such as au pair, nanny, nursery nurse or nursery assistant. Additionally, 6% worked in the teaching profession and a further 4% in other professional care activities - mainly social work, counselling and psychology. A number were employed in the clerical field (21%), personal services and sales assistants (9%), managers (7%), technicians and associate professionals (7%), craft and related trades workers (4%) and domestics' in offices, hotels or other establishments (1%). A very small group of childminders (4%) had not participated in the job market before working as a registered childminder.

Highest level of qualification related to working with children or young people

More than half of childminders (58%) had a Level 3 qualification relevant to working with children, and a substantial group had Level 6 - a degree (21%). A smaller group had a Level 4 or Level 5 (7% and 6% respectively). Very few had a Level 1 or 2 (3%) or no relevant qualification related to working with children or young people (4%).

3.1.2 Characteristics of childminders' settings

Number of assistants or co-childminders

Slightly less than half of childminders had at least one assistant or a co-childminder (43%) but the majority had none (57%). Within the group of childminders working with other caregiver/s, most had one (57%), one third had two (33%), and just a few had three or four assistants or co-childminders working with them (9%).

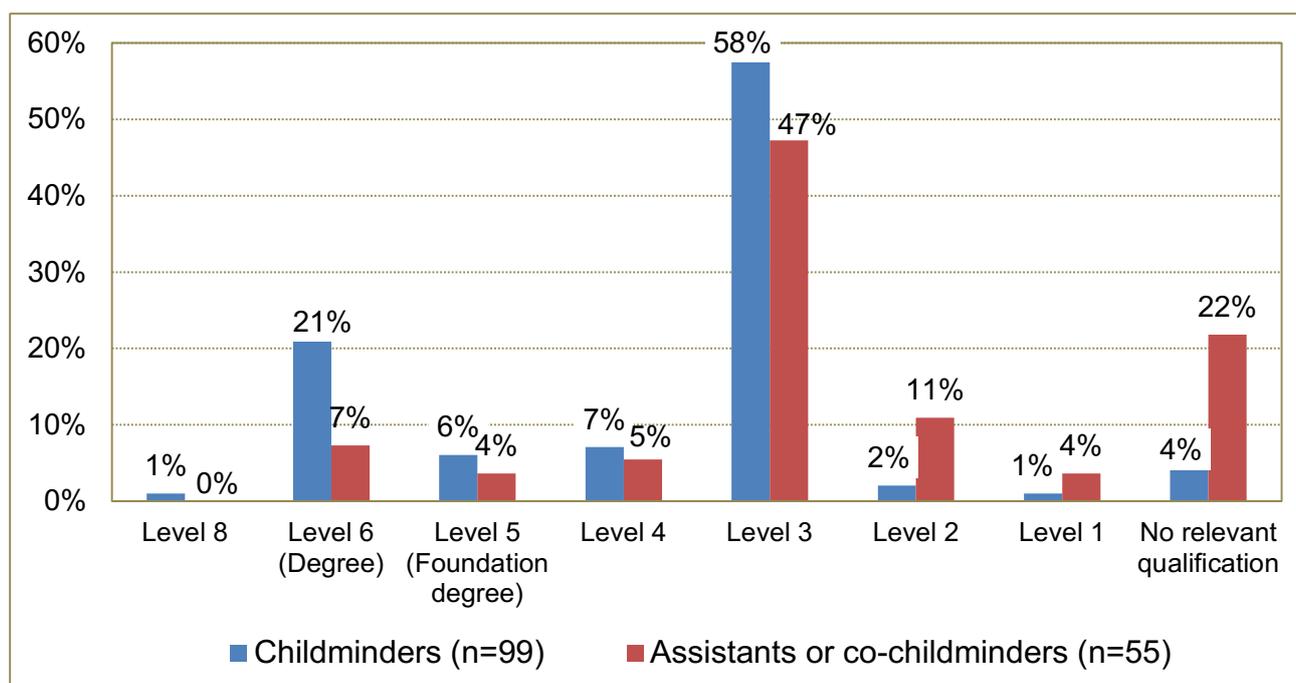
Assistants or co-childminders years of experience working in early years

Assistants or co-childminders in these settings had, on average, 7.5 years of experience working with young children; which is half of that of the childminders. Almost half of the assistants or co-childminders had less; from under 1 year up to 5 years of experience in the early years' workforce (49%), 29% had between 6 and 10 years, 17% had between 11 and 20 and 5% had 21 or more years of experience working in early years. Figure 1 above shows the comparison for childminders' and assistants or co-childminders' years of experience working in early years.

Assistants or co-childminders highest level of qualification related to working with children or young people

Almost one out of two assistants or co-childminders (47%) had a Level 3 qualification relevant to working with children, a few had a Level 4 or Level 5 or a Degree/Level 6 qualification (5%, 4% and 7% respectively). Some had a Level 2 (11%) or Level 1 (4%) and about one fourth (22%) had no relevant child care or early years' qualification. (See Figure 2)

Figure 2. Highest level of qualification in relation to working with children or young people



3.1.3 Provision of Care and Education: Offer and Current Take Up

Registered places

61% of childminders were registered for six places and a relatively big group was registered for 12 places (20%) due to employing assistants or working with another childminder. The remaining group was registered for four or five places (8%), eight to ten places (7%) or for more than twelve Ofsted registered places (5%).

Children currently being cared for

The average of “minded” children per setting was 10 (SD =7) – that is the number of children registered who are coming throughout the week. In the interpretation of these figures it must be borne in mind that many childminders care for children before and after school as well as young children during the school day. (See Table 1)

Table 1. Number of children per setting

Number of children	Percent
1 to 5	20%
6 to 8	21%
9 to 11	29%
12 to 14	17%
15 +	12%
Total	100%

n = 99

Age of children under care

The age range of the children attending the settings varied from 1 to 15 years.⁶ On average, the age range among the youngest and the oldest child enrolled is between 6 and 7 years but there is a substantial variability amid settings (SD = 3.2). Looking at the relative frequencies of the children’s age range one fifth (21%) of childminders have children within a narrow age range, 1 to 3 years. Another group of childminders (14%) also worked with children within a relatively small age range of 4 to 5 years. However, most childminders were caring for children within different age groups: babies, toddlers and pre-schoolers as well as children attending school.

⁶ Most observations of process quality were carried out when only children in the early years’ age range were present. The children of school age (5-15 years-old) were only present for out-of-school care and some of them attend only during holidays.

The age of the youngest child enrolled in these settings was either under one year-old (41%) or a one-year-old (43%). The remaining childminders had either a two year-old (13%) child or a three year-olds (2%) child as the youngest on roll. (See Table 2)

Table 2. Age of the youngest child

Child Age	Percent	Cumulative Percent
Birth to 11 months	41%	41%
1 year-old	43%	85%
2 year-old	13%	98%
3 year-olds	2%	100%
Total	100%	

n = 99

With regard to the age of the oldest child enrolled, in half of the childminders the oldest child was aged from two years old up to seven years old, and for the other half of childminders the oldest child was from eight to fifteen years old. (See Table 3)

Table 3. Age of the oldest child

Child Age	Percent	Cumulative Percent
2 year-old	3%	3%
3 year-olds	14%	17%
4 year-olds	5%	22%
5 year-olds	6%	28%
6 year-olds	7%	35%
7 year-olds	12%	48%
8 year-olds	10%	58%
9 year-olds	11%	69%
10 year-olds	19%	88%
11 year-olds	6%	94%
12 year-olds	2%	96%
13 year-olds	2%	98%
14 year-olds	1%	99%
15 year-olds	1%	100%
Total	100%	

n = 99

Socio-economic characteristics of children attending

The childminders were asked about the number of children in their care who came from a one-parent family. We selected this indicator for socio-economic disadvantage because it is associated with: a) greater risks of poverty, material deprivation and family stress and; b) poorer child outcomes, such as educational attainment and behavioural difficulties (Parsons and Platt, 2013). A little more than one third (37%) had no children coming from a one-parent family. A quarter of childminders (27%) had 21-40 percent of single-parent children and a slightly smaller proportion (20%) had 41-60 percent, of children from a one-parent families. (See Table 4)

Table 4. Percentage of children from one-parent families

Percent of children from one-parent families	Percent
None	37%
1 a 20 per cent	27%
21 a 40 per cent	20%
41 a 60 per cent	13%
61 a 80 per cent	3%
81 a 100 per cent	0%
Total	100%

n = 95

In 2014, 23% of all children lived in one parent families. The percentage of dependent children⁷ living in one parent families has changed little over the last decade. The percentage found in this study corresponds to the UK (Labour Force Survey, Office for National Statistics, published in January 2015. <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-248983>)

Time when care is offered

In terms of working hours, childminders usually offered care during the weekdays before 8:00 am (61%) or beginning at 8:00 am (36%) and finishing at 6:00 pm (54%), around 5:00-5:30 pm (27%) or between 6:30 pm and 9:30 pm (19%). On average, childminders provided care for 10 hours per typical weekday (SD =0.54). The minimum number of hours worked was 8 hours and the maximum 15 hours per day. Some of them also offered care during the weekends (23%) and overnight (15%).

⁷ ONS refers to dependent children as those aged under 16 living with at least one parent, or aged 16 to 18 in full-time education, excluding all children who have a spouse, partner or child living in the household

3.1.4 Key Practices in Place

Quality improvement programme and quality assurance scheme membership

Childminder's affiliation to a Quality Improvement Programme or a Quality Assurance Scheme (QIP/QAS) was divided: 57% participating and 43% not taking part in any Quality Improvement Programme. Amongst those participating in a QIP/QAS, most of them were affiliated to a local authority network (68%). Another group of childminders (25%) was involved with a PACEY or Quality First/PACEY network. (See Table 5)

Table 5. Involvement in Quality Improvement Programme or Quality Assurance Scheme (QIP/QAS) and the type of Programme or Scheme

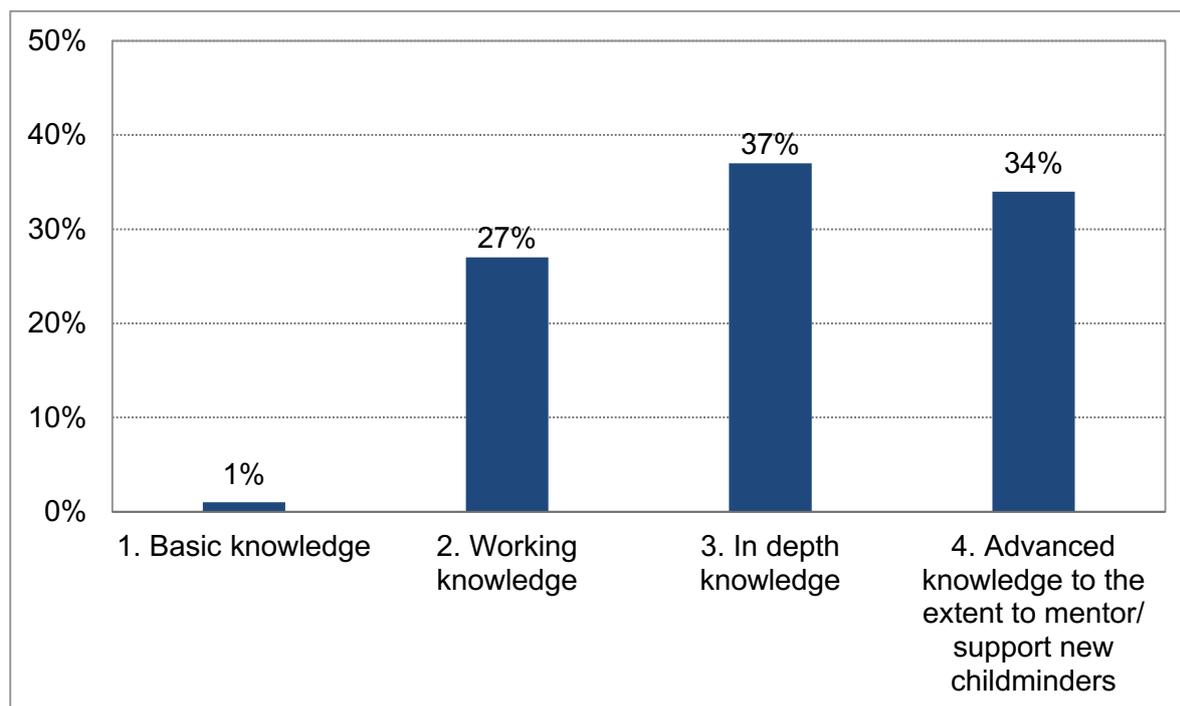
Type of QIP/QAS	Percent
Local Authority Network	38%
Quality First/PACEY Network	14%
Quilt	1%
Trio Childcare	1%
Other	2%
Total	57%
Not received support	43%
Total	100%

n = 99

Early Years Foundation Stage Statutory Framework knowledge

Childminders were required to self-assess their level of understanding of the requirements of the EYFS statutory framework. One in three (34%) childminders indicated they had an advanced knowledge of the EYFS requirements to the extent that they were used to mentor new childminders. One in three (37%) said that they had in depth knowledge and a smaller group acknowledged they had working knowledge (27%). Just one childminder considered herself as having basic knowledge. (See Figure 3)

Figure 3. Self-reported level of understanding of the requirements of the Early Years Foundation Stage Statutory Framework (EYFS)



n = 99

Monitoring children's progress

Observing children is a statutory requirement placed on all practitioners delivering the EYFS in order to plan appropriately for children's individual needs. Collecting their own observations of children is a key aspect of effective planning and practice. Almost half of childminders (48%) carried out observations daily to gauge children's needs and to plan their next learning steps. Around a third did it up to once a week (31%) and a smaller group did it up to once a month (15%). Specially designed software (i.e. Baby's days, 2Simple) were used by some childminders to collect daily information (photos, videos and notes) about children's routines and activities. They also used observations on learning and development to plan for their next steps. Monitoring was also used to exchange child-related information with primary caregivers.

The most common way to monitor children's progress was through the use of Development Matters and Early Years Outcomes documents as a tracking tool (63%). Others had their own system to track children's progress based on the EYFS (43%) and a few childminders used both methodologies for tracking children's advancement in their learning and development. (See Table 6)

Table 6. Monitoring children's progress

Monitoring children's progress	Percent
1. I use Development Matters/ Early Years Outcomes documents as a tracking tool	53%
2. I have my own system to track children's progress based on the EYFS	33%
3. My monitoring system informs me where children are in their learning and development	3%
1 & 2.	9%
1 & 3.	1%
2 & 3.	1%
Total	100%

n=99

Delivery of free early education and care to 2, 3 and 4 year-olds children

Childminders were asked whether or not they were part of the local authority delivery of funded places to two year-old children, and 75% were. Some of them had one (31%), or two or three (4%) children registered that were eligible for the funded provision. Amongst those with no eligible children enrolled, two out of three were still registered to offer the free provision.

Regarding the delivery of funded early education places for three and four year-olds, half of childminders (47%) were providing care for one or more children in this age group.

Working with children with SEN/D

Childminders were asked whether they were caring for children with special educational needs or disabilities (SEN/D) and one out of five was (22%). Many of them (69%) had received early years training about caring for children with SEN/D and almost everyone (98%) asserted that their setting was open to children with SEN/D.

Access to training and support

Childminders were asked whether they had access to professional development training and/or workshops other than the mandatory first aid/safeguarding courses. The vast majority said they did (96%). In relation to frequency, at least once per quarter/term was the most common rate (35%). Some took training more often: at least once a month (24%) or twice a quarter/term (9%), and others more spread out: twice a year (20%) or less than two times per year (7%). (See Table 7)

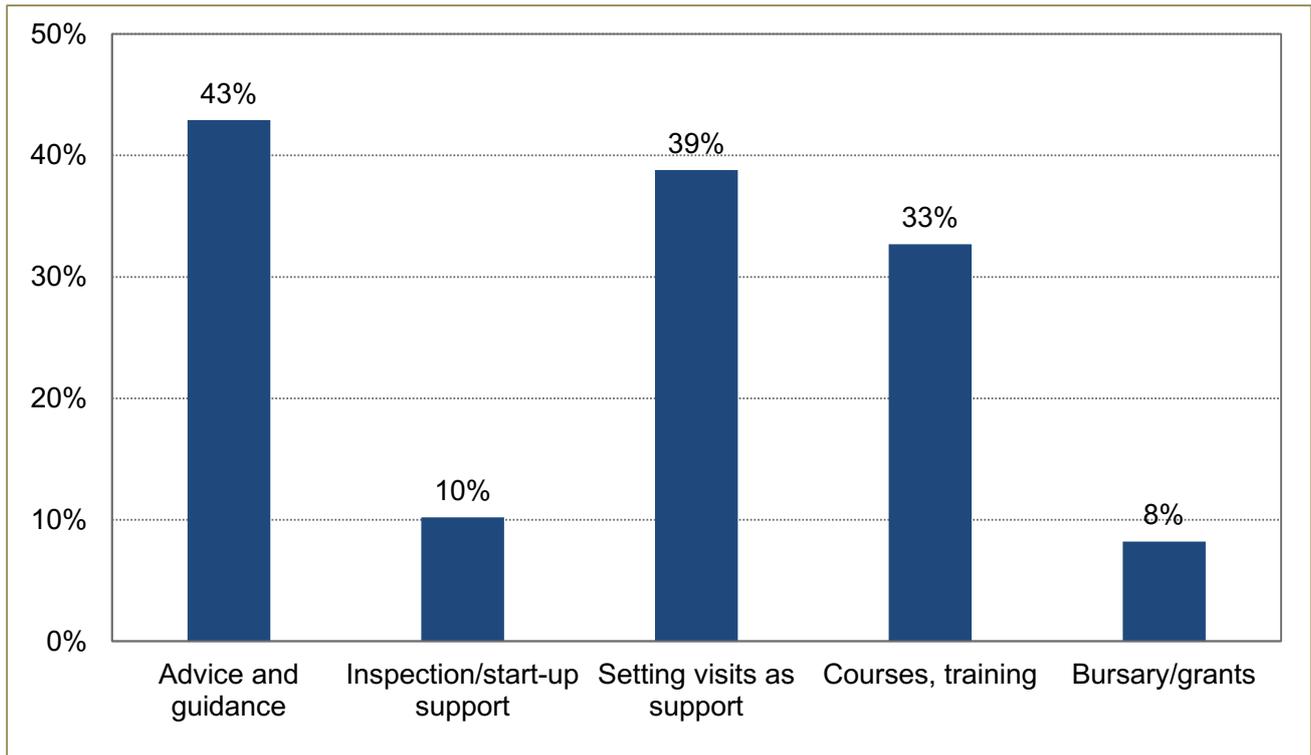
Table 7. Frequency of access to continued professional development

Frequency of access to professional training	Percent
0. None	4%
1. Less than twice per year	7%
2. At least twice per year	20%
3. At least once per quarter/term	35%
4. One every 2 months - Twice per quarter/term	9%
5. At least once a month	24%
Total	100%

n=99

As far as receiving support from the local authority during the past year, childminders' experiences were divided, half had and half had not. Among those who received support, one fifth of childminders received a mixture of advice, guidance and training. Considering each kind of support individually, most childminders obtained advice and guidance (43%), a quality setting visit by a local authority officer (39%) and attended at training (33%). (See Figure 4)

Figure 4. Local Authority (LA) support 2013-14



n=65 (percent of cases)

Internet use to support childminding work

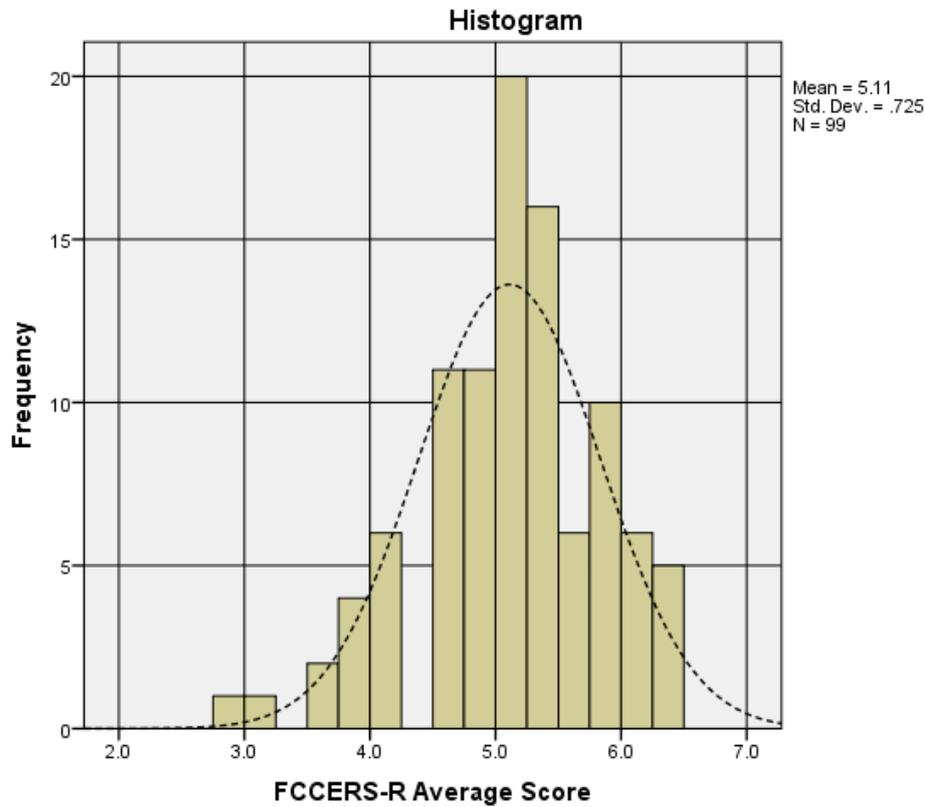
The vast majority of childminders used the Internet to support their work (90%). In general, they were keen to browse websites specifically oriented towards childminders (48%), for example, Facebook's Independent Childminders page; websites for child care workers in general (35%) e.g. Ofsted, Foundation Years, PACEY; websites with a more general early childhood content (25%), e.g., ActivityVillage.co.uk; and Web search engines (35%), e.g., Google, were used to search for information and resources.

3.2 Process Quality

Distribution of FCCERS-R and SSTEW scales overall scores and an overview of the sub-scales

The quality of child care was measured by observing what actually occurs in childminding settings using two multidimensional scales. Firstly we examine the findings for the Environmental Rating Scale developed for home-based child care settings (FCCERS-R). The average for the FCCERS-R total score was 5.1 with a close to normal distribution of scores (SD = 0.7). (See Figure 5)

Figure 5. Histogram for overall Family Child Care Environmental Rating Scale-Revised (FCCERS-R) average scores



We calculated averages for the seven sub-scales. The highest average score (6.3) was for Interaction. Specifically, this sub-scale contains items describing: a) staff supervision of children, b) staff use of non-punitive discipline, c) staff’s warmth towards, respect for, and responsiveness to children, and d) staff’s promotion of positive interactions among children.

The sub-scale with the lowest average score (4.4) was Activities. This subscale includes items describing: a) the presence of educational activities (e.g., math or science activities), b) the portion of the day children have unconstrained access to a variety of learning materials (e.g. art supplies, dramatic play, and music materials; blocks; sand or water; materials that promote fine motor skills), and c) the acceptance of diversity. Some childminders scored low on the Activities subscale because, even though they had the learning materials in question, they were not made available to children for a considerable part of the day. (See Table 8)

Table 8. Means and Standard Deviations for FCCERS-R sub-scales scores

FCCERS-R sub-scales	Mean	SD
I. Space and Furnishings	5.3	0.9
II. Personal Care Routines	4.9	1.0
III. Listening and Talking	5.5	1.1
IV. Activities	4.4	1.0
V. Interaction	6.3	0.6
VI. Programme Structure	5.8	1.2
VII. Parents and Provider	5.2	0.9

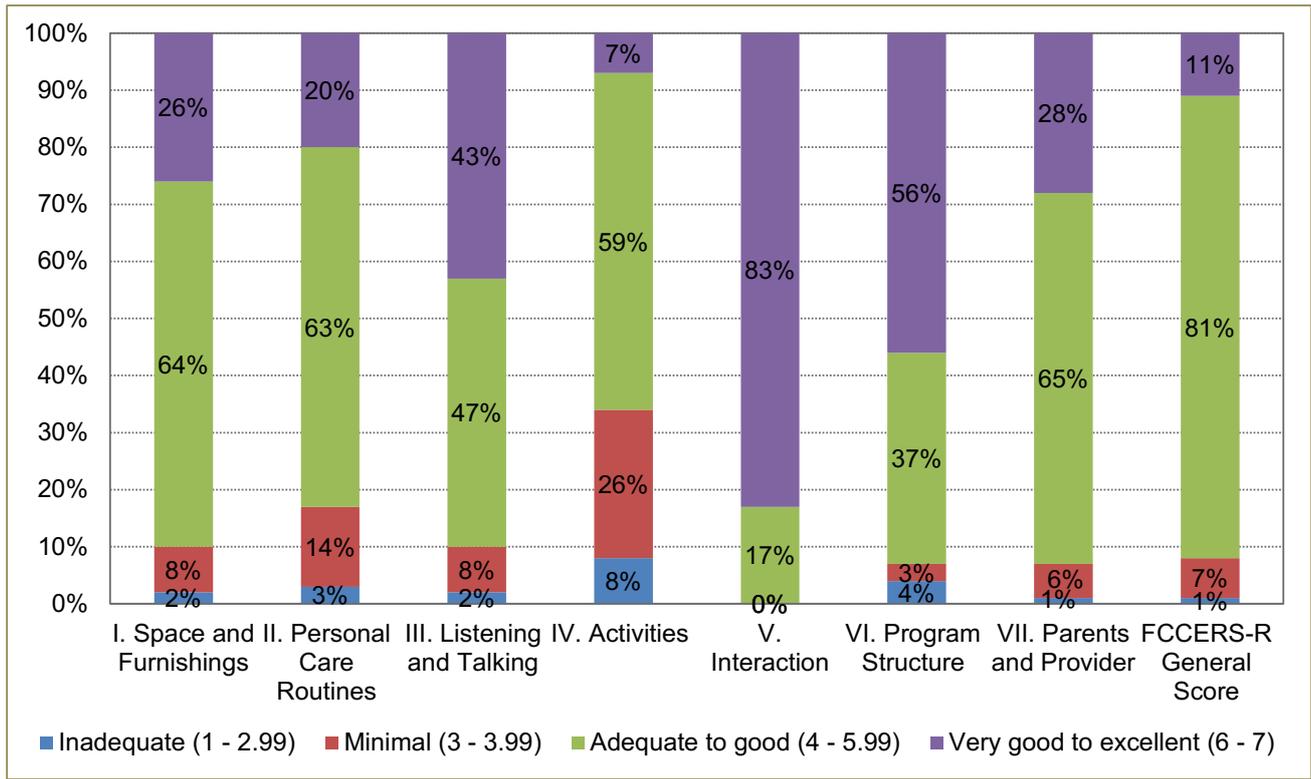
n=99

Figure 6 depicts the distribution of the FCCERS-R scores classified in four levels of quality. These categories range from ‘inadequate (1 to 2.99)’, ‘minimal (3 to 3.99)’, ‘adequate to good (4 to 5.99)’, to ‘very good to excellent (6 to 7)’. The dimensions for which many settings received an ‘inadequate and less than adequate’ scores are Activities (34%) and Personal care routines (18%). The latter reflects aspects of dealing with diapering/toileting needs, healthy provisions for naps, appropriate feeding practices, and health and safety.

The sub-scales with the highest scores ‘very good to excellent’ were Interaction (83% of all childminders) and Programme Structure (56%). The latter measures the use of routines, group time, and free play. Moreover, the Listening and talking sub-scale had a substantial number of high scores (43%). This sub-scale includes items about facilitating language and using books.

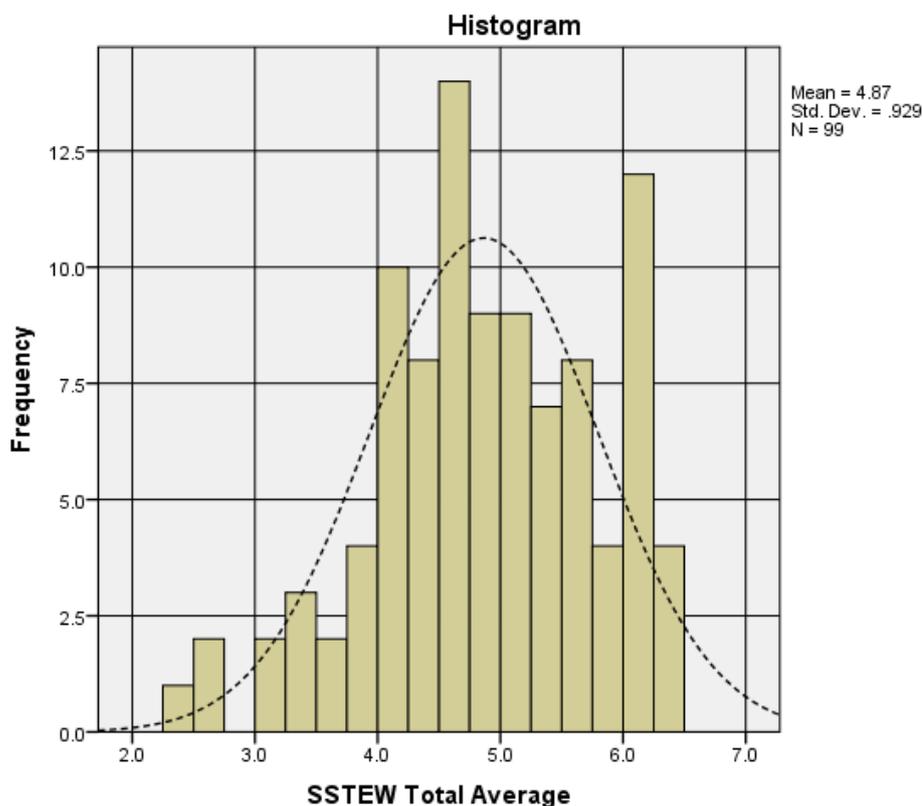
The Space and Furnishings sub-scale measures the physical environment, such as child-sized furniture, available private spaces, display of children’s artwork, and provision of “softness” for which many childminders settings scores were ‘adequate to good’ (64%). The Parents and provider subscale included working closely with parents, balancing own family responsibilities and child care programme, and taking part in formal professional activities. Most of the scores for this sub-scale were also ‘adequate to good’ (65%). While we present these results to show the variation amongst childminders, these subscale scores do not necessarily have implications for child outcomes.

Figure 6. FCCERS-R sub-scales and overall average scores



The Sustained Shared Thinking and Emotional Wellbeing (SSTEWS) scale focuses on the adult’s role in supporting learning and development; particularly relating to building trust and confidence, social and emotional wellbeing, critical thinking, assessment for learning and supporting and extending language and communication. The childminding settings had a reasonably good performance in the observational assessments of quality of the environment for children, with an average of 4.9 (SD =0.9) for the SSTEWS total average score. The distribution of scores is close to a normal distribution. (See Figure 7)

Figure 7. Histogram for overall Sustained Shared Thinking and Emotional Wellbeing (SSTEW) average scores



The sub-scale with the highest average score was ‘Supporting and extending language and communication’ (5.8). This domain measures children’s interactions, support for children’s language use and to listen and being listened to, as well as staff sensitive responsiveness.

On the other hand, the lowest scores were for the sub-scales ‘Supporting learning and critical thinking’ (3.8) and ‘Assessing learning and language’ (4.1). (See Table 9).

Table 9. Means and Standard Deviations for SSTEW sub-scales scores

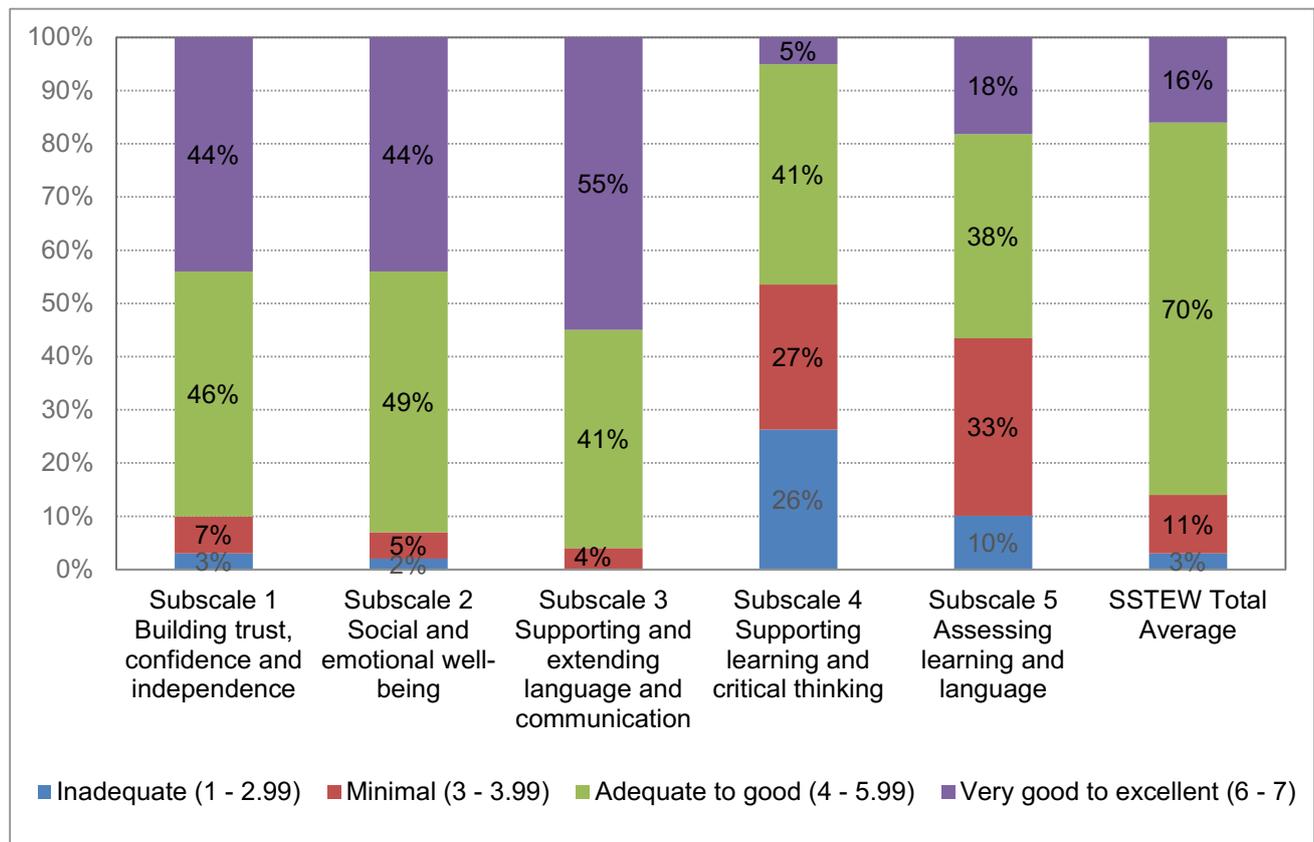
SSTEW sub-scales	Mean	SD
1. Building trust, confidence and independence	5.5	1.1
2. Social and emotional well-being	5.1	1.4
3. Supporting and extending language and communication	5.8	0.8
4. Supporting learning and critical thinking	3.8	1.3
5. Assessing learning and language	4.1	1.4

n=99

Looking at the four categories of quality for the SSTEW, childminding settings typically scored 'very good to excellent (6 to 7)' or 'adequate to good (4 to 5.99)' for three sub-scales: 'Building trust, confidence and independence' (44% and 46%, respectively), 'Social and emotional well-being' (44% and 46%, respectively), and 'Supporting and extending language and communication' (55% and 41%, respectively).

Lower scores were registered for sub-scales 'Supporting learning and critical thinking' and 'Assessing learning and language': many settings scored 'minimal (3 to 3.99)' or 'inadequate (1 to 2.99)' (53% and 43%, respectively). (See Figure 8)

Figure 8. SSTEW sub-scales and overall average scores



n=99

3.3 Relationships between Process Quality and Structural Quality

This section explores the relationships between process quality (variables: overall FCCERS-R and SSTEW scales scores) and structural characteristics of the childminding setting (variables: group-size and adult-to-child ratio during observation) and caregivers

characteristics (variables: highest level of formal education related to working with children, years of experience as a registered childminder, whether or not is part of a QIP/QAS and the regular attendance at early years or child care training.

3.3.1 Predictors of Process Quality by Structural Quality Indicators and Caregiver Characteristics

In order to examine the associations between the different quality predictors, the bivariate relationships were analysed, looking at each structural quality indicator in relation to the two quality measures. We observed:

- Significant positive correlations between both regular attendance at training and QIP/QAS participation with both quality scales.
- The years of experience as a registered childminder had a significant positive correlation only with the SSTEW total score.
- Neither the adult-to-child ratio nor the group size showed a statistically significant correlation overall with the two process quality measures, but they did discriminate between settings with low quality and the rest, but did not discriminate amongst settings that scored above the low range. (See Table C1 in Appendix C)

Also there was a correlation between years of experience as a registered childminder and whether or not the caregiver was part of a QIP/QAS. Childminders with fewer years of experience participated less in a QIP/QAS than those with more experience. The percent of childminders with more than 3 years of experience who were part of a QIP/QAS (66%) was higher than for less experienced (months to three years) childminders (31%).

For the variables that showed an important correlation with the process quality measures, we conducted t-tests to provide extra detail of the differences in overall scores means for different groups of childminders.

First, the group attending early years training (includes messy play, outdoor learning, creating and thinking critically, active learning) had higher FCCERS-R average scores ($M = 4.5$, $SD = 1.0$) than those without such training ($M = 5.2$, $SD = 0.7$), $t(97) = -2.9$, $p = .004$). The SSTEW average score was also higher for the childminders who had training ($M = 5.0$, $SD = 0.9$) than for those without training ($M = 4.01$, $SD = 1.1$), $t(97) = -3.1$, $p = .002$. In short, childminders attending early years' training or workshops other than the mandatory ones provided better environmental quality in their child care and education settings.

Second, childminders participating in a QIP/QAS such as the ones provided by a local authority network had significantly higher FCCERS-R average score ($M = 5.2$, $SD = 0.7$) than had those who did not participate in a QIP/QAS ($M = 4.9$, $SD = 0.8$), $t(97) = -2.1$, $p = .04$. Similarly, the SSTEW average score was greater when the childminder did belong to a QIP/QAS ($M = 5.1$, $SD = 0.9$) than those who did not ($M=4.6$, $SD = 0.9$), $t(97) = -2.8$, $p = .006$. In brief, childminders who were part of an improvement programme delivered better quality child care and early education.

Third, the number of years of experience as a registered childminder was significantly correlated to the SSTEW total score but not the FCCERS-R total score. SSTEW scores were higher for those with more years of experience as a registered childminder, indicating that they had higher quality interactions with children.

Also the SSTEW overall score was even higher when the most experienced childminders were part of a QIP/QAS ($M = 5.2$, $SD = 0.9$) than when they did not belong to a QIP/QAS ($M = 4.6$, $SD = 1.0$, $t(71) = -2.8$, $p = .006$). Moreover childminders with more years of experience were more likely to be part of a QIP/QAS. Indeed, participation in a QIP/QAS together with having more years of experience as a childminder produced better quality of environment for stimulating children's sustained shared thinking and emotional wellbeing, which has previously been found to be linked to better child outcomes (Sylva, K. et al, 2010).

Multivariate statistical analysis to predict process quality from structural quality indicators

We used the results from the previous section to choose which explanatory variables to include in a linear regression model to predict quality scores. Regular early year's training and Quality Improvement Programme/Quality Assurance Scheme participation were included in a model for predicting FCCERS-R overall scores. Results showed that training frequency and QIP/QAS participation are independently correlated to the FCCERS-R scores – not statistically significant role together to predict FCCERS-R scores. (See Table C2 in Appendix C)

The multivariate statistical analysis for predicting SSTEW overall scores showed that QIP/QAS involvement and frequency of training were significant explanatory variables. Independently of training frequency, childminders taking part of a QIP/QAS tend to rate better on the SSTEW average scores. Training frequency also affected quality scores but lesser than QIP/QAS participation. (See Table C3 on Appendix C). The implication of this is that ensuring childminders have professional training is likely to increase the overall quality of the environment that they provide for children.

3.3.2 Structural and Childminder’s Characteristics linked to Different Ranges of Process Quality

Do structural and caregiver characteristics relate to process quality differences for outstanding childminding settings?

In this section we consider what aspects of structural quality and caregiver characteristics differentiate outstanding settings from the rest. We looked at all the structural indicators and caregiver characteristics together to identify significant explanatory variables for the process quality measures –both the overall FCCERS-R and the SSTEW scale average scores.

We found that the number of years of experience had a significant explanatory role, when controlling by the frequency of training and Quality Improvement Programme involvement. Childminders with more years of experience were more likely to have an outstanding SSTEW overall score. (See Table C4)

A finer analysis of years of experience showed that a greater percent of childminders with ten to sixteen years of experience (21%) as well as those with seventeen or more years as registered childminders (33%) had an outstanding quality as measured by the SSTEW scale total scores. (See Table 10)

Table 10. Overall SSTEW average scores outstanding (>= 6) vs. the rest by years of experience as registered childminders

SSTEW total average score	Years of experience as a registered childminder				Total
	Less than a year up to 3 years	4 to 9 years	10 to 16 years	17 years or more	
Score lower than 6	96%	92%	79%	67%	84%
Score >=6	4%	8%	21%	33%	16%
Total	100%	100%	100%	100%	100%
n	26	25	24	24	99

Also we considered whether a particular level of experience (e.g., <=3, 4-9, 10-16, or 17 or more years) was related to having an outstanding FCCERS-R quality score. We found that a higher percent of childminders with 17 years of experience (25%) obtained an outstanding score on this quality measure in comparison with less experienced childminders (8%). (See Table 11)

Table 11. Overall FCCERS-R average scores outstanding (≥ 6) vs. the rest by years of experience as registered childminders

FCCERS-R total average score	Years of experience as a registered childminder				Total
	Less than a year up to 3 years	4 to 9 years	10 to 16 years	17 years or more	
Score lower than 6	92%	96%	92%	75%	89%
Score ≥ 6	8%	4%	8%	25%	11%
Total	100%	100%	100%	100%	100%
n	26	25	24	24	99

Do structural and caregiver characteristics relate to process quality differences for good or above settings versus the rest?

We also examined the contrasts between settings that scored ‘good’ or better (5 or more), in comparison with the rest. The multivariate statistical analysis allowed us to identify that only the participation on a Quality Improvement Programme or Quality Assurance Scheme increased the chances of having a score or 5 or above in both of the two quality measures. (See Tables C5 and C6 on Appendix C)

Indeed, this association is shown in the following cross tabulation. A bigger percent (73%) of childminders who were part of a Quality Improvement Programme was rated ‘good’ or above on the FCCERS-R scale than those who did not participate (51%). (See Table 12)

Table 12. Childminders FCCERS-R average scores good or above (≥ 5) vs. the rest by QIP/QAS involvement

FCCERS-R very good and above: ≥ 5	Is part of a QIP/QAS		Total
	No	Yes	
Score lower than 5	49%	27%	36%
Score ≥ 5	51%	73%	64%
Total	100%	100%	100%
n	43	56	99

Similarly, childminders participating in a quality assurance scheme obtained a ‘good’ or above SSTEW total score more often than the ones who did not belong to any Quality Improvement Programme or Quality Assurance Scheme (57% and 28%, respectively) irrespective of their years of experience. (See Table 13)

Table 13. Childminders SSTEW average scores good or above (≥ 5) vs. the rest by QIP/QAS involvement

SSTEW very good and above: ≥ 5	Is part of any QIP/QAS		Total
	No	Yes	
Score lower than 5	72%	43%	56%
Score ≥ 5	28%	57%	44%
Total	100%	100%	100%
n	43	56	99

The participation in a QIP/QAS entails receiving professional and peer support as well as training. The majority of childminders were part of a local authority network that provided this continuing professional development. Part of the support was sourced in a Children’s Centre in their neighbourhood. Childminders reported that not only did they have an alternative facility for children to play and interact with other children, but also they met colleagues and children’s centre professionals. The Children’s Centre was perceived as an accessible place to share information and seek advice and guidance when needed; for example, guidance from a speech and language therapist when the childminder has concerns about a child’s speech.

Do structural and caregiver characteristics relate to process quality differences for settings rated adequate and above vs minimal and inadequate?

Furthermore, the same comparison was carried out between settings that received an adequate and above versus those with a minimal or inadequate quality score. For the overall FCCERS-R average scores no variables had a significant association so as to differentiate between these two groups. Yet, for the SSTEW total score, the adult-to-child ratio during the observation and the childminder’s frequency of training made a difference. The chances of having a score of 4 and above increased when the childminder attended more than two training sessions a year. In addition, the probability of receiving an adequate or above score on the SSTEW scale was higher when the adult-to-child ratio was more favourable. (See Table C7 in Appendix C)

Note however, that the adult-to child ratio during the observation was often 1.5 to 2.99 (40%) or 3 to 4 (47%) with fewer settings having a ratio less than 1.5 (16%). As we mentioned, the time when the observation was conducted was during school hours and out-of-holidays so fewer than the total children enrolled were present, with mainly infants, toddlers and some pre-school age children being present.

Almost all (94%) settings operating with a ratio of less than 1.5 attained an adequate or above overall quality score. The ones working with a ratio of 2.5-2.99 or 3-4 during the

observation were more likely to have a minimal or inadequate SSTEW score (14% and 22% respectively). The trend is clear: a higher adult-to-child ratio was associated with lower quality of the care and education. (See Table 14)

Table 14. Overall SSTEW average scores adequate and above vs. minimal/inadequate by adult-to-child ratio during observation

SSTEW score adequate and above vs. minimal or inadequate	Adult-to-child Ratio during observation				Total
	Less than 1.5	1.5 - 2.49	2.5 - 2.99	3.0 - 4.0	
Score minimal/inadequate < 4	6%	8%	14%	22%	13%
Score adequate and above >=4	94%	92%	86%	78%	87%
Total	100%	100%	100%	100%	100%

n = 98

4 CONCLUSION

Overview of Key findings

Provision of care and education: offer and current take up

- More than half of childminders had six Ofsted registered places and one fifth offered 12 registered places when employing assistants or working with another registered childminder.
- The age range of the children attending these childminding settings varied from 1 to 15 years. School aged children attended for out-of-school care. Most of childminders cared for babies, toddlers, pre-schoolers and school aged children.
- Usually the youngest child was one year old or under.
- Almost two thirds of childminders cared for children from a one-parent home.
- The usual working hours for childminders were between 8:00 am or earlier, up to 5 or 6pm during weekdays. Only a few offered weekend and overnight care.

Key practices put in place

- Childminder's participation in a quality improvement programme or a quality assurance scheme (QIP/QAS) was divided, half were and half were not. Some of them were not in QIP/QAP because the local network was discontinued.
- The level of understanding of the Early Years Foundation Stage statutory framework was self-reported as very good.
- Monitoring children's progress was usual. Half made daily observations on children's progress to plan the next steps in the children's learning, in line with the commitments and principles of the EYFS statutory framework. Of the remaining half, many monitored children at least once a week.
- The majority of childminders monitored children's progress using Development Matters and/or Early Years Outcomes documents as the basis of their tracking. One third had their own system to track children's progress based on the EYFS.
- Three quarters of childminders were registered with the local authority to deliver funded places to two-year-old children.
- Almost half of childminders were providing one or more funded early education places for three and four year-olds.
- Almost all childminders were open to care for children with Special Educational Needs or Disabilities (SEN/D). One fifth were caring for a child with SEN/D.

- Attendance at early years training other than the mandatory safeguarding and first aid was common amongst childminders.
- Local authority support was varied, half had some support and the other half did not.
- The majority of childminders used the Internet to support their childminding work.

Process quality

- The overall average score was 'Good (5)' for the two quality measures with a close to normal distribution.
- Some childminders' settings received an outstanding quality score: 11% on the FCCERS-R quality measure and 16% on the SSTEW quality scale.
- Very few had inadequate or minimal overall quality score: 1% and 7% respectively on the FCCERS-R; 3% and 11% respectively on the SSTEW quality scale.
- The FCCERS-R sub-scale with the highest average score was 'Interaction'.
- The FCCERS-R sub-scale with the lowest average score was 'Activities'.
- The SSTEW sub-scale with the highest average score was 'Supporting and extending language and communication.'
- The SSTEW sub-scale with the lowest scores were for the sub-scales 'Supporting learning and critical thinking' and 'Assessing learning and language.'

Relationships between Process Quality and Structural Quality

Predictors of process quality measures by structural quality indicators and caregiver characteristics

- Participation in networks providing a Quality Improvement Programme or Quality Assurance Scheme (QIP/QAS) was associated with better quality of care (both scales).
- Participating in specialised continued professional development (CPD) -at least twice a year- was associated with higher overall child care and education quality (both scales).
- The experience of being a childminder is a significant asset that enabled a better sustained shared thinking and emotional wellbeing environment for the children under care. The childminders with more experience tended to be part of a QIP/QAS.

- Early years' training frequency and QIP/QAS involvement were independently correlated to the FCCERS-R average score.
- The association between the frequency of early years training and the SSTEW average score was less important than that of the QIP/QAS participation and the SSTEW average scores.

Structural and Childminder's Characteristics linked to Different Ranges of Process Quality

- An outstanding childminding setting, scoring 6 and above on the SSTEW scale, tended to be led by more experienced childminders.
- Participation in a Quality Improvement Programme or Quality Assurance Scheme (QIP/QAS) was associated with increased chances of a score of 5 (good, very good or outstanding) for both scales.
- The adult-to-child ratio during the observation and the childminder's frequency of training differentiated adequate and above settings from those with a minimal or inadequate quality score, i.e., a more favourable adult-to-child ratio (lower) and more frequent training were significantly associated with scores that were adequate and above.

To conclude, this study found that most childminders participating in the study had at least a Level 3 qualification relevant to working with children. Attendance at early years training other than the mandatory safeguarding and first aid was common amongst childminders. Half of the caregivers reported that they were involved in a QIP/QAS but some had been in a local authority local network that was discontinued because of insufficient funding. This suggests that many childminders were involved in a programme to improve child care and education quality, demonstrating professionalism as well as a need for professional support in their work. Overall, the support received from local authorities did reach all childminders. Also the majority of childminders used the Internet to support their work.

The observations of child experiences took place during school hours so that the children present were under school age. Thus, the quality ratings are based on the interactions amongst infants and preschool children and the caregivers. There was wide variation in the overall quality ratings with an average score equivalent to 'good'.

When we looked at the connections between the characteristics of childminders and the scores for quality, we found that three factors are associated with the process quality:

1. the adult-to-child ratio
2. the frequency of training and QIP/QAS support, and

3. the years of experience as a childminder.

Adult-to-child ratio during observation partly explained the quality differences but only at the bottom end of the quality distribution, and it did not make a difference in the higher scores. This might be a consequence of the legal restriction on the adult: child ratio.

Early years training and support through Quality Improvement Programme or Quality Assurance Scheme involvement were associated with quality. QIP/QAS participation involves additional training as well as advice and guidance and extra professional support provided through meetings, group activities, setting visits and a local neighbourhood network of childminders and other professionals in the ECEC field. These two aspects (early years training participation and QIP/QAS) distinguished childminders with at least a 'good' rating, from those with just adequate or less rating. They did not distinguish between 'good' and outstanding. Only the years of experience made a difference in distinguishing the outstanding childminders. Once we arrive at the upper part of the quality distribution it was childminders with more years of experience who were more likely to receive an outstanding quality rating. Also more experienced childminders had received more in-service training and had participated in a Quality Improvement Programme or Quality Assurance Scheme.

Previous research partly supports these results. Childminders' education and experience have each been associated with child care quality. Several studies found positive associations between childminders' early childhood training and observed process quality, for example, in the U.S. a study of 300 childminders concluded that caregiver training was the structural characteristic that most consistently predicted global quality (Burchinal, Howes & Kontos, 2002). Findings relating childminders' experience and child care quality are less consistent.

In addition to the personal and professional characteristics of the childminder, group size and child to adult ratio are other influences that may affect quality. In some studies of home-based child care providers, a significant association between ratio and process quality has been found (Kontos et al, 1995; Raikes et al, 2005) but not in others (Burchinal, et al, 2002). Additionally, the use of support services, such as belonging to a professional network, informally networking with other childminders, and using community resources (e.g., library story hour or a toy lending library) have been associated with higher scores on measures of global quality (Bromer et al, 2009; Doherty et al, 2006; Pence & Goelman, 1991). A specific study about process quality with 150 childminders in Chicago concluded that affiliation with a network is a strong predictor of quality, particularly in low-income contexts. Affiliation with a network that had a combination of a specially-trained coordinator delivering training, visits to childminders settings, and supportive interactions presented significantly higher quality care and

education than childminders affiliated with a network that did not have a specially-trained coordinator and direct service offerings (Bromer et al 2009).

As a cautionary note it should be mentioned that it is always possible, but perhaps unlikely, that variables not measured in this study may also affect the quality of child care and education provision from childminders. Nonetheless, this study has provided strong evidence identifying a number of aspects of childminding that are associated with higher quality early education that can be influenced by policy.

Some key messages to be drawn from these findings are that:

1. Keeping child: adult ratio low can help to reduce the likelihood of poor quality care amongst childminders
2. Professional development can improve the quality of care provided by childminders
3. Efforts should be made to encourage childminders to stay in the profession where they provide reasonably good quality as high quality is associated with more years of experience.

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Appendix A

An example of a FCCERS-R item

Item 20: Dramatic play

Item	Inadequate 1	2	Minimal 3	4	Good 5	6	Excellent 7	
1.1	No materials accessible for dramatic play.*		3.1	Some materials accessible daily to carry out meaningful dramatic play - e.g. toy buildings with appropriately sized props; materials to use with dolls; child-sized stove with pots and pans.*	5.1	Manny and varied appropriate dramatic play materials accessible for each age group.*	7.1	Materials accessible to represent diversity - e.g. dolls representing different races/ cultures; equipment used by people of different cultures or with disabilities.*
			3.2	Some appropriate materials accessible for each age group.*	5.2	Materials for each age group are accessible for much of the day.*	7.2	Materials accessible for toddlers and older children for active dramatic play outdoors or in other large area.* NA permitted.
					5.3	Materials are organized by type for independent use - e.g. play dishes in separate container; dolls stored together; dress-up hats and purses hung on pegs; accessories stored with toy buildings.	7.3	Provider facilitates children's dramatic play - e.g. talks to toddler on toy telephone; brings out props for playing store; helps school-agers put on a play.*
					5.4	Some child-sized play furniture for toddlers and preschoolers - e.g. small sink or stove, baby stroller, shopping cart.* NA permitted.		

N.B. scores 2, 4 and 6 are halfway between 1, 3, 5 and 7.

An example of a SSTEW scale item

Item 9: Supporting curiosity and problem solving

Item	Inadequate 1	2	Minimal 3	4	Good 5	6	Excellent 7
1.1 The learning environment is always set out in the same way and includes the same resources and activities.			3.1 There are a variety of resources available each session. Activities are chosen that the adults know the children will want to play with.		5.1 New resources, activities or challenges are set up regularly. They are linked to the current theme or time of year or children's interests or schemas.		7.1 Planning shows there have been regular visitors e.g. police, local shop keepers, taxi driver and/or staff dressed as characters in familiar stories playing a role.
1.2 Staff stand back and allow the children to play by themselves all of the time unless there is conflict.			3.2 Staff offer at least one adult supported activity during a session. 3.3 Staff ask children to help them solve problems for example while setting up areas: finding and helping them put out resources.		5.2 Staff model, support and extend children's learning in ALL areas of the setting, moving from one area to the next as appropriate. 5.3 Staff challenge and support problem solving for example by posing small everyday problems or inviting children to solve problems as they arise.		7.2 Visits are made to places of interest and/or to extend children's knowledge and experiences. 7.3 Staff support curiosity by hiding unexpected objects and/or using treasure boxes to be discovered during play. 7.4 Staff support children's metacognition by talking aloud to model their thinking and problem solving processes and support children to plan, do and review activities.

N.B. scores 2, 4 and 6 are halfway between 1, 3, 5 and 7.

Appendix B

SEED Supplementary questions for childminding settings

Date of Interview:
Interviewer:
Location:
Unique ref number:

These questions should be discussed with childminders at the time of the visit

Background

- 1a. How many years of experience have you had in working in early years?
- 1b. Of these years how many have been as a registered childminder?
- 2. Briefly outline your employment experience prior to becoming a childminder.

Programme characteristics

- 3. Are you an independent childminder or registered with a childminder agency?
- 4a. How many assistants are working with you?
- 4b. How many years of experience do your assistants have working in the early years? (if applicable – list each one)

	Years of experience working in early years
Assistant 1	
Assistant 2	
Assistant 3	
Assistant 4	

- 5a. How many Ofsted registered places, or childminder agency registered places, do you have?
- 5b. How many of your own children under eight you have?
- 6a. How many mined children are currently registered at the setting?
- 6b. How many of these children come from a lone parent family?
- 7a. What is the minimum and maximum age range you are registered for?
Minimum child age: _____ Maximum child age: _____
- 7b. Birthdates of children on roll:
Youngest __ / __ / ____ Oldest: __ / __ / ____
- 8a. Are you part of your local authority's scheme to deliver funded places for two year olds?
- 8b. How many children you have registered that would be eligible for the two year-old funded provision?
- 9. Are you delivering any funded early education places for three and four year-olds?

10a. On a typical day, what are your operating hours?

10b. Are you available for overnight care and/ or weekends?

Overnight care

Weekends

Other

None

Special Educational Needs/Disabilities

11. Do you currently care for any children with mental and/or physical disabilities? (Caring for any children with an Education Health and Care Plan (EHCP) formerly Early Years Action/Action Plus Statement)

12. Have you received any specialist training to care for children with SEN/D?

13. Is your setting open to children with Special Educational Needs and/or Disabilities?

Qualifications

14. What is your highest level of qualification, relevant to working with children or young people? And what is your assistants'?

Qualification level	Childminder	Assistant1	Assistant2	Assistant3	Assistant4
Level 8					
Level 7					
Level 6 (Degree)					
Level 5 (Foundation degree)					
Level 4					
Level 3					
Level 2					
Level 1					
No relevant child care/early education qualifications					
Don't know					
Other (please specify)					

Training/Development and Support

15a. Do you access any training/workshops other than mandatory first aid/ safeguarding training?

15b. If so how frequently do you access professional development training/ workshops?

At least once a month

At least once per quarter/term

At least twice per year

Less than twice per year

Other

16a. Are you a part of any Quality Improvement Programmes/Quality Assurance Schemes? (e.g. Childminding Network, Local Authority Scheme)

16b. If yes, which one/s?

17a. Do you receive any type of additional support from your local authority/ childminder agency?

17b. If yes, what kind of support have you received in 2014?

- Inspection support
- Advice and guidance
- Trainings courses or workshops
- Setting visit
- Bursary
- Start-up support
- Other

EYFS delivery

18. Which of the following words best describes your understanding of the requirements of the Early Years Foundation Stage Framework?

- Basic knowledge
- Working Knowledge
- In depth Knowledge
- Advanced knowledge to the extent that you are used to mentor/support new childminders

19. How often do you make observations on children/plan for their next steps according to the EYFS?

- Less than once a week
- Once a week
- 3 times a week
- Daily
- More than once a day

20. Which of the following statements best describes how you monitor children's progress:

- I use Development Matters/Early Years Outcomes documents as a tracking tool
- I have my own system to track children's progress based on the EYFS
- My monitoring system informs me where children are in their learning and development
- I do not use a formal system for tracking children's progress

21a. Do you use the internet to support you in your work as a childminder?

21b. If yes, what sources of information you find most helpful?

22. Finally, would you be willing to take part in any further research as part of the SEED project/study?

Appendix C - Tables

Correlation matrix and Descriptive Statistics

Table C.1⁸ Childminders characteristics and Structural and Process Quality Indicators: Pearson Correlations and Descriptive Statistics (n = 99)

Variables	1. FCCERS -R Total Score	2. SSTE W Total Score	3. Years of experience	4. Frequency of early years training	5. Highest level of qualific.	6. Is part of a QIP/QAS	7. Adult -to- child ratio	8. Group size
1. FCCERS-R Total Score	-							
2. SSTE W Total Score	.839**	-						
3. Years of experience as registered childminder	0.159	.222*	-					
4. Frequency of early years training	.199*	.200*	0.071	-				
5. Highest level of qualification related to working with children	-0.04	0.045	0.018	0.021	-			
6. Is part of a QIP/QAS (^)	.204*	.276**	.263**	0.056	0.124	-		
7. Adult-to-child ratio during observation (^^)	-0.13	-0.126	-0.13	0.036	-0.082	-0.001	-	
8. Group size	-0.077	-0.091	-0.089	-0.019	0.075	0.051	.512**	-
M	5.11	4.87	11.12	3.11	3.72	0.57	2.27	3.21
SD	0.73	0.93	8.36	1.38	1.46	0.5	0.83	1.67
Range	2.8 - 6.5	2.4 - 6.4	0 - 32	0 - 5	0 - 6	0 - 1	0.5 - 4	1 - 8

[^] 1=childminder is part of a Quality Improvement Programme/Quality Assurance Scheme, 0=childminder is not part of a QIP/QAS.

^{^^} n=98 because one outlier value was excluded of the analysis.

** p<.01, * p <.05 (2-tailed)

⁸ Table C1 shows the Pearson correlations coefficients and descriptive statistics for all of the quality indicators. The correlation coefficient, r, ranges from -1 to +1, (+1 is perfect correlation, -1 is perfect negative or inverse correlation, and 0.0 is no relationship). Positive associations were hypothesised, except for the adult-to-child ratio for which we expect a negative relationship, i.e., the lower the adult-to-child ratio, the higher the overall quality scores.

Multiple linear regression analysis to predict process quality from structural quality indicators

Table C.2 Overall FCCERS-R average scores in relation to QIP/QAS involvement and early years' training frequency: multiple linear regression coefficients

Explanatory variables	Standardized Coefficient	t	Sig.
	β		
Is part of any Quality Improvement Programme/Quality Assurance Scheme	0.194	1.97	0.052
Frequency of training	0.051	1.92	0.058
Adjusted $r^2 = .058$			

Table C.3 Overall SSTEWS average scores in relation to QIP/QAS involvement and early years' training frequency: multiple linear regression coefficients

Explanatory variables	Standardized Coefficient	t	Sig.
	β		
Is part of any Quality Improvement Programme/Quality Assurance Scheme	0.266	2.76	0.007*
Frequency of training	0.185	1.92	0.057
Adjusted $r^2 = .092$			

* $p < .05$

Binary logistic regression models

Table C.4 Overall SSTEWS average scores outstanding (≥ 6) vs. the rest by whether childminder is part of a QIP/QAS, early years' training frequency and years of experience as registered childminders: binary logistic regression coefficients

Explanatory variables	B	S.E.	Wald	df	Sig.	Exp(B)
Is part of any Quality Improvement Programme/Quality Assurance Scheme	0.143	0.227	0.396	1	0.529	1.154
Frequency of training	0.622	0.651	0.912	1	0.34	1.862
Years of experience as registered childminders	0.081	0.034	5.794	1	0.016*	1.085

* $p < .05$

Table C.5 Overall FCCERS-R average scores good or above (≥ 5) vs. the rest by QIP/QAS involvement: binary logistic regression coefficients

Explanatory variable	B	S.E.	Wald	df	Sig.	Exp(B)
Is part of any Quality Improvement Programme/Quality Assurance Scheme	1.237	.434	8.114	1	.004*	3.444

* $p < .05$

Table C.6 Overall SSTEW average scores good or above (≥ 5) vs. the rest by QIP/QAS involvement: binary logistic regression coefficients

Explanatory variable	B	S.E.	Wald	df	Sig.	Exp(B)
Is part of any Quality Improvement Programme/Quality Assurance Scheme	.959	.429	4.995	1	.025*	2.609

* $p < .05$

Table C.7 Overall SSTEW average scores adequate and above (≥ 4) vs. minimal/inadequate by early years' training frequency and adult-to-child ratio during observation: binary logistic regression coefficients

Explanatory variables	B	S.E.	Wald	df	Sig.	Exp(B)
Frequency of training	0.616	0.271	5.151	1	0.023*	1.851
Adult-to-child ratio during observation	-1.22	0.464	6.905	1	0.009*	0.295

* $p < .05$



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