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A CORAL Initiative: Aiming to better understand how programmes delivered by Early Years are improving long-term outcomes for children, families and communities

The Developmental Status of 2-3 Year Old Children Entering Group-Based Settings in Northern Ireland: Survey Findings

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Executive Summary

Background and Scope of the Survey

Between October 2008 and January 2009 a survey was conducted of 655 two-three year old children who attended 90 early years settings in Northern Ireland together with the practitioners in the settings and the children's parents. The survey was part of a larger research project which evaluated the impact of a new developmental movement and play-based service for two-year olds, called the Eager and Able to Learn Programme (EAL), designed by Early Years. The evaluation was conducted from October 2008 to June 2010 and the findings from that evaluation are to be published separately.

This present report sets out the findings of a survey which sought to explore: (1) the stage of development of two-year-old children across a variety of developmental domains, as they entered into early years settings designed for 2-3 year old children; (2) the knowledge, attitudes and behaviours of their parents, related to the developmental needs of two-year-olds; and (3) the knowledge, attitudes and behaviours of the practitioners in the early years settings, related to the developmental needs of two year olds.

For the children, the main purpose of the survey was to gain a snapshot of the developmental stages of a large sample of 2-3 year old Northern Ireland children at a single point in time in the latter part of 2008. The sample was not representative of the Northern Ireland population of 2-3 year old children, as it was confined to children who attended centre-based early years settings and did not include children who were looked after by relatives and child-minders, or by their parents during the day. The social and economic background of the children was evaluated using a Multiple Deprivation Score (derived from Super Output Area statistics) based on the children's postcode, and the education levels of the children's parents were also categorised. The parents of the children in the sample had higher levels of qualifications than the general population of same-aged adults in Northern Ireland. For example, 42% of the parents had educational qualifications at Level 4 and above (mostly higher education degrees) compared to 19.6% in the general population, and 2% of the parents had no qualifications compared to 9.4% of the general population of the same age. Nevertheless, the children in the sample came from a wide range of backgrounds, from urban and rural settings and were geographically distributed across Northern Ireland. Thus, the sample provides an opportunity to examine overall profiles of children and differences between sub-groups.

The children were accessed through the early years centres in which they were enrolled in October 2008. 68 of the early years settings surveyed were Day Care Nurseries and 22 were Sure Start Programmes; 67 settings were in urban areas and 23 were in rural areas. Sure Start programmes are part of a new government-funded programme for 2-year olds in socially deprived areas in Northern Ireland and children attend for 12 hours per week. The Day Care Nurseries who participated were either privately owned or community managed nurseries where children attend on a full-day or part-day basis. It is important to remember that the survey did not evaluate the effects of the different early years settings on the children's development; it assessed their developmental stage *close to the point of entering the setting*.

There were substantial differences in the social and economic background of the children who enrolled in different types of settings. For example, children who attended Day Care Nurseries tended to be from more affluent areas than those children who attended Sure Start programmes, and children in rural settings tended to be more social and economically advantaged than the children in the urban setting. Nevertheless, there were substantial overlaps between the subsamples of children in these different categories.

Survey Findings for the Children

655 children participated in the survey; 341 boys (52%) and 314 girls (48%). The mean age of the sample at the time of testing was 2 years and 7 months, and ranged from 2 years 0 month to 3 years and 1 month. This represents approximately 2.8% of the 2-3 year cohort of children for that year in Northern Ireland (the Census identified 23,272 live births in 2006.)

The assessment tool used for the children was the Bayley Scales for Infant and Toddler Development, 3rd Edition (2006a, 2006b), commonly known as Bayley III, developed from the long established Bayley Scales. In this revision, five domains of children's development was separately assessed – cognitive development, receptive and expressive communication, fine and gross motor movement.

In addition, there are two new domains based on ratings from a person who observes the children in everyday settings (normally the parents). The Social-Emotional Scale is based on the Greenspan Social-Emotional Growth Chart (Greenspan, 2004) and measures how well children have met certain social-emotional milestones. The Adaptive Behaviour scale is designed to measure the attainment of functional skills necessary for increased independence. It is based on the Adaptive Behaviour Assessment System – 2nd Edition (ABAS-II; Harrison and Oakland, 2003) and is divided into ten sub-scales. We used only a subset of these due to time considerations, specifically: communication, functional academics, leisure, self-direction, and social interaction. All Bayley-III scales have high reliability and validity. For the baseline survey, the practitioners in the early years settings rated the children on the Social-Emotional Scales and the Adaptive Behaviour Scales rather than the parents. This decision was largely for practical reasons (e.g., not putting too great a burden on parents who were also required to complete parental questionnaires). Practitioners may not have had as extensive knowledge of any single child as a parent has, but they were in a position to draw on their experience of a larger number of children, and thus were well positioned to make comparative judgements about children's development. Nevertheless, the norms for the scales are based on parents' ratings of their own children and, thus, cautious interpretations must be made based on the norms (see below).

Using the Bayley age-based norms (from US samples), the average performance for each of the developmental domains has a scaled score of 10 and a standard deviation of 3. Because of the recency of the new Bayley III test, only the US norms were available for comparison at the time of testing in 2008. Subsequently, UK norms for Bayley III for a sample of 221 children aged from 10 months to 2 years 3 mths became available (Bayley, 2010 UK and Ireland Supplement Manual). Comparisons with the US norms can now be calibrated with reference to the UK and Ireland supplement sample, but a full UK normative sample is still
not available.

Making direct comparisons with the US same aged children, and acknowledging that the sample may be biased towards children from more affluent backgrounds, the Northern Ireland children in this sample were more developmentally advanced than the US norms in four developmental domains – cognitive, receptive language, expressive language, and fine motor development. They were less

advanced than the US norms for gross motor development. In terms of the rank order of the children's performance across the different developmental domains, the Northern Ireland sample was most advanced in receptive communication and most delayed in gross motor development. Fine motor development was also well advanced – thus showing an unusual dissociation between fine motor and gross motor development. However, the pattern of findings for Northern Ireland children was more in line with the general findings for the UK norms, where children's gross motor movement across the UK appears to be less advanced than for same-aged US children, and their fine motor movement appears to be more advanced. This is an important finding, as recent research from the Millennium Cohort longitudinal study in the UK, has shown that developmental delays in motor development at 9 months of age (fine motor and gross motor) were associated with poorer cognitive outcomes for children at age 5 (Schoon, Cheng & Jones, 2010). Thus, gross motor development seems to be an area of developmental concern for UK children – at least at this age.

With regard to the social, emotional, dispositional and behavioural domains rated by the practitioners, the Northern Ireland sample was less advanced compared to US same-aged children – with one exception. On the Greenspan Social-Emotional Scale – which assesses perceptions of general developmental milestones – the children were more advanced than the US norms. For the more specific behaviours which constitute the Adaptive Behaviour Scales, the children were rated as less advanced. Because of differences between the methods of data collection for the two samples in terms of who completed the ratings (parents in the US norms, practitioners in the NI sample), we are not completely confident about how appropriate using the US norms is for evaluating the normative levels of the children's development. Nevertheless, the *rank order* of the practitioners' ratings can reveal the relative development of the children in the different domains, as perceived by the practitioners. For example, the adaptive skills that are designated as 'conceptual' – communication, functional pre-academics (emergent literacy) and self-direction – appear to be rated higher than social skills – leisure (play) and social interaction. Despite the findings from the Social-Emotional scale with regard to advanced developmental milestones, the children's average scores with regard to their capacity to engage in playful activities, joining in, showing social skills, helping others and so on, are relatively low.

Also, care must be taken not to rely solely on the children's *average* scores in each developmental domain. The distribution of the scores show wide variation between same-aged children, showing that it is difficult to say exactly what is typical development for 2-3 year old children – particularly for those who design developmentally appropriate programmes and organise activities in early years settings.

In terms of the general factors that predict developmental outcomes, this baseline survey reproduces well-rehearsed findings. For example, girls were more developmentally advanced than boys – with the exception of gross motor movement. Social and economic background had very predictable effects. Specifically, poorer developmental outcomes were associated with the lowest levels of social disadvantage, even at this early age (e.g., Feinstein et al., 2003). Rural children were more developmentally advanced in some areas than urban children, but these effects were probably indirect effects of social disadvantage/advantage.

Gross motor development stood out as being influenced differently than the other domains – at least those domains assessed through the Bayley play-based tasks. For example, there were no differences between boys and girls in their gross motor development; gross motor development was associated with social disadvantage but not in predictable ways. On the other hand, children in rural settings had better gross motor development than children in urban settings.

Survey Findings for the Parents and Practitioners

A secondary purpose of the survey was to find out about the perceptions of the children's parents and the practitioners in the early years setting about the developmental needs of 2-3 year olds, and their associated actions and interactions with the children. The survey was not intended to be fully comprehensive and concentrated on specific areas – namely, play, movement and learning, and adult-child interactions related to the children's social-emotional, physical and cognitive growth. In addition, because of the importance of parental involvement with early years education, questions were included in both the parents' and the practitioners' survey about their current experiences and satisfaction with the level of communications and working partnerships between parents and early years settings.

501 parents/guardians completed the questionnaires and 95% of the respondents were women. Almost 60% of the parents were aged between 25-35 years and the remainder were older rather than younger. Only 8% were between 18-25 years. Over 40% of the parents had third level education.

230 practitioners completed a questionnaire and 229 were women. Almost 50% of the practitioners were between 18-25 years, 80% had pre-degree vocational qualifications, and less than 10% had a degree. There were few differences in qualification levels between practitioners in Day Nurseries and Sure Start Programmes – at least for practitioners working with this age group. The practitioners could be characterised as experienced/very experienced. Over 90% had worked in early years settings for more than 1 year, almost 50% for more than 6 years, and almost 20% for more than 10 years. In addition, the vast majority had considerable specific experience with 2-3 year olds. There was some evidence of movement in the workforce, with just over 30% reporting that they had worked in their current setting for less than one year.

Overall, the vast majority of parents and practitioners presented very positive and developmentally sensitive portraits of their interactions with the 2-3 year old children. It should be remembered that the data is 'self-reported' and there is probably a positive response bias in the pattern of the findings. Consequently, the rank order of the ratings and frequencies reported may be more revealing than the absolute level.

Several findings stand out with regard to position in ranking. For example, for play activities, emergent literacy (story-telling and books) was reported most frequently for both parents and practitioners, and there was a tendency for more active activities (movement games and dance, rough and tumble play, playing with outdoor equipment) to be reported less frequently Nevertheless, there was no evidence that play was 'in peril' for this sample of children and parents. Also, parents expressed the highest levels of satisfaction about playing with their children, in terms of their parental self-efficacy

Also, some interesting patterns, and contradictions, emerged around the domain of emotional development and emotional expression – in terms of its rank ordering relative to other domains. Parents rated their ability to show affection to their children and recognise their children's emotional states as the lowest among the four parental-efficacy scales. Although practitioners rated their own social and emotional interactions with the children very highly (kneeling to talk to the children, giving hugs and cuddles, using a warn tone), and they rated the children's social-emotional development as well advanced (the Greenspan Social Emotional Scale in Bayleys), when asked about more specific behaviours related to emotional development, the picture did not look so positive. For example, practitioners did not give a high frequency rating to helping children express and communicate their feelings during play, and they rated using movement to communicate feelings as

least important and least planned for – relative to the other reasons for using movement. This a rather complex set of findings which are not easy to interpret. What it does seem to show is that the domain of children's emotional development and emotional expression (e.g. recognising, expressing and communicating feelings) needs some additional attention and articulation for early years practitioners, even when they themselves have warm and supportive relationships with the children.

With regard to the role of movement in learning, both parents and practitioners thought that it was relevant to a wide range of learning as well as being important for keeping children fit and healthy. Nevertheless, as mentioned above, movement and physical activity forms of play tended to be engaged in less frequently than other play activities. Questions to the practitioners about very specific developmental movement activities (hand-eye co-ordination, balance, body-sense, body co-ordination) were rated as very important and planned for very frequently but there was some doubt as to whether these questions had been fully understood. Importantly, from the Bayleys test, the children's gross motor development scores were the least advanced relative to the other developmental domains. When making these links between parent/practitioner responses and children's developmental stages, it is important to remember that the parents' beliefs and interactions were likely to have been more influential for the children's development at this stage rather than the practitioners, as the children had just arrived into the early years setting when they were assessed.

Finally, there was strong alignment between the parents' and practitioners' views about communication and the working relationship between them. Both groups agreed that they had positive and open communications with the other group, although practitioners' views tended to be slightly more positive than the parents. More diverse views were expressed about whether the settings encouraged feelings of shared responsibilities, joint activities and extending the work of the early setting into the home. Some settings clearly did this and others did not. Again, parents and practitioners agreed on this point. There is clearly room for development work here for any new service design.

Implications for Practice and Policy

There are particular points to note not only for practice, such as for training early years practitioners, for input from early years specialists and for parent workshops, but also for centre managers, inspection and regulation systems and for early years policy makers more generally.

The Children

Variability for children of the same age: Frequent references are made in everyday professional exchanges about the 'typical' 2 year old. One of the most important findings in the survey was the degree of variability observed between same-age children. Although this confirms the everyday experience of parents and those who interact frequently with young children that 'every child is different', it is not always taken sufficiently into account when designing programmes for young children, or when arranging everyday activities in early year settings. For example, practical arrangements like moving children from the 'two-year old' room into the 'three year old' room based on age criterion alone might need to be reconsidered, as well as the general expectations that early year practitioners might hold of what is 'typical' for two year olds.

Relative strengths and weaknesses in the development of the children The findings draw attention to the normative strengths and weaknesses of the children's development.

On average, the children's language development seemed to be well advanced but there was wide variation between same aged children. Also noted was a gap between the children's level of understanding spoken words compared to their expected ability to communicate using words and sentences, which was less well developed. This implies that more attention needs to be given to helping children develop their abilities to *use* words in a variety of contexts, to extend vocabulary and begin to use more complex sentence structures.

There was also a gap between the children's fine motor and gross motor development, with gross-motor development being relatively poorly developed. This pattern has been previously observed in UK samples of children. Nevertheless, it does point to the need to engage children in more whole bodied physical activities, whether indoors or outdoors. For example, recent reports from the four Chief Medical Officers in the UK recommend that children under 5 (who are capable of walking) should engage in physical activities (mostly active play) for at least 180 minutes spread throughout the day.

While the children's general social-emotional development seemed well advanced, their more specific abilities to engage in playful interactions, joining in, co-operating and helping other children, was relatively low. Practitioners need to have flexible strategies for interacting with children in playful ways and not to have fixed ideas about the nature of play (see below).

On average, girls were generally more advanced than boys in most areas but there was considerable overlap between the distributions of scores for both genders; some boys were above average and some girls were below average. It is important that practitioners avoid stereotyped expectations about girls 'always being better' or boys 'always being behind'.

These patterns represented the overall profile for the group of children that were surveyed. Practitioners need to remember that individual children will also display their own unique profile of strengths and weaknesses. For example, a child may have well developed language abilities but with less well developed fine or gross motor skills; or a child may be well developed socially but need more help in specific areas of language development, for example, in expressive language.

Social and economic disadvantage: Children who came from less affluent backgrounds were developmentally disadvantaged across most domains. The effect was particularly obvious for the most disadvantaged sub-group (the lowest quartile). These children do need more intensive high-quality interventions/programmes designed specifically with their needs in mind – programmes that, by observing the children at the point of entry, can plan for the individual needs of a child as well as the overall needs of the group. There are existing evidence-based programmes to support such observations.

The Practitioners

Images of play: There was some evidence of contrasting images of what constituted 'good' play held by practitioners – from allowing children to play alone and follow their own interests to adult scaffolding and extending children's play. Both are likely to be appropriate, with practitioners making professional judgements about which should guide their actions. However, such images can be held implicitly and influence practitioners' actions in ways in which they are not fully aware. Training needs to begin to explore these taken-for-granted images of play and to expand the repertoire of practitioners' roles and behaviours in relation to play for this age group.

Practitioners' interactions and children's emotional and social development: Practitioners reported warm relationships and developmentally appropriate interactions with children. Nevertheless,

children's social skills and capacity for playfulness were not well developed, and practitioners reported giving lower priority to helping children express and communicate emotions than they did to other areas of development. This domain of children's development may need to be further explored with practitioners, with input from early years specialists, and specific strategies identified.

Overall, the findings show that practitioners need to have a deep underpinning knowledge and high levels of professional competence when working with this age group. They need to know about child development from 0-3 years across a variety of domains and how they can best interact with children to promote their development. They also need to have a deep (rather than superficial) understanding of the role of play in children's development and be able to use flexible strategies for interacting with children in playful ways (e.g., scaffolding play, acting as a play partner, helping children move from playing alone to playing with other children, observing play).

The Parents

Communication and sharing between practitioners and parents: Parents and practitioners were generally satisfied with the level of communication with one another, except in the specific area of 'shared responsibilities, joint activities and extending the work of the early settings into the home', where mixed views were expressed. Some deeper issues here may need to be explored about boundaries of responsibility and/or the value of a joint agenda to help children's development and learning.

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The research team is indebted to the managers and practitioners in the early years settings, the children and parents who participated in the study. We also appreciate the cooperation and ongoing support from Early Years during the study.

1. Introduction

Between October 2008 and January 2009 a survey was conducted of two-year-old children who attended 90 early years settings in Northern Ireland; the practitioners in the settings and the children's parents were also surveyed. The survey was part of a larger research project that evaluated the impact of a new developmental movement and play-based service for two-year olds, called the Eager and Able to Learn Programme (EAL), designed by Early Years.

This report presents the findings of the survey, which sought to explore:

- The stage of development of two-year-old children across a variety of developmental domains, as they entered into early years settings designed for 2-3 year old children;
- The knowledge, attitudes and behaviours of their parents, related to the developmental needs of two-year-olds;
- The knowledge, attitudes and behaviours of the practitioners in the early years settings, related to the developmental needs of two year olds.

The assessment tool used for children was the Bayley Scales for Infant and Toddler Development, 3rd Edition (2006a, 2006b), commonly known as Bayley III, developed from the long established Bayley Scales. In this revision, five domains of children's development are separately assessed – cognitive development, receptive and expressive communication, fine and gross motor movement. In addition, there are two new domains based on ratings from a person who observes the children in everyday settings (normally the parents). The Social-Emotional Scale is based on the Greenspan Social-Emotional Growth Chart (Greenspan, 2004) and measures how well children have met certain social-emotional milestones. The Adaptive Behaviour scale is designed to measure the attainment of functional skills necessary for increased independence. It is based on the Adaptive Behaviour Assessment System – 2nd Edition (ABAS-II; Harrison and Oakland, 2003) and is divided into ten sub-scales. We used only a subset of these due to time considerations, specifically: communication, functional academics, leisure, self-direction, and social interaction (see Appendix 1 for more details of the scales). All Bayley-III scales have high reliability and validity.

The Bayley is a standardised test and norms are available for the expected levels of development for children at certain ages. Because of the recency of the Bayley III revisions, there were no published studies in the UK on general populations of children against which to benchmark the current sample of Northern Ireland children. UK and Ireland norms for calibration purposes were published in 2010 but they are not a full set of norms for different age groups (Bayley, 2010 UK and Ireland Supplement Manual). For now, comparisons can be made only against same-aged US children.

These findings are reported in the following ways:

- The average standardised scores for the children across 11 domains using the Bayley Scale of Infant and Toddler Development are reported, and the distributions of scores are graphically displayed. Simple statistical comparisons are made between the main subgroups of children.

- Using graphs and tables, the parents' and practitioners' survey questionnaire data are briefly described at the level of individual questionnaire items. Patterns are summarised and comparisons are made between the two data sets.
- General conclusions are then drawn and significant patterns in both the child, parent and practitioner analyses are highlighted.

2. Methodology

2.1 Sample

2.1.1 Settings

In total, 90 settings took part in the survey, 67 were located in urban areas and 23 were located in rural areas as illustrated in Table 1. 68 of the settings were Day Nurseries and 22 were Sure Start programmes. Sure Start programmes are part of a new government-funded programme for 2-year olds in the most socially deprived areas in Northern Ireland (top 20%) and children attend for 12 hours per week. Because the Sure Start programme is funded on the basis of area rather than on the basis of individual child need, the Sure Start programmes can enrol children from a variety of social backgrounds, though the vast majority are from more socially disadvantaged households (see Table 2). In contrast, the Day Care Nurseries are either privately owned or community managed nurseries where children can attend on a full-day or part-day basis. Because of these structural differences between the two types of early years settings, the experience of children in the settings are likely to be very different.

Table 1. Number of settings in different subgroups

	Rural	Urban	Total
Day Nursery	17	51	**68**
Sure Start Programme	6	16	**22**
Total	**23**	**67**	**90**

2.1.2 Children

In total, 655 children participated in the survey: 341 boys (52.1%) and 314 girls (47.9%). The mean age of the sample was 2 years and 7 months. The age of the children at the time of testing ranged from between 2 years 0 month and 3 years and 1 month.

Table 2 shows the social and economic background of the children who enrolled in the different subgroups of settings. A measure of social deprivation, the Multiple Deprivation Score (MDS), derived from the Super Output Area statistics, was calculated based on the children's home postcode (provided through the parental questionnaires). This measure was available for 499 children from the full sample of 655. Where the child's postcode was not available, the setting postcode was used as a reasonable estimate of the geographical location of the children's home. Higher MDSs indicate greater social and economic deprivation.

Table 2. Social and economic background of the children in the various settings: Multiple Deprivation Score (MDS) based on child postcodes

	Rural	Urban	Total
Day Care Nurseries	16.4	19.3	**18.6**
Sure Start Programme	31.0	33.0	**32.5**
Total	**19.6**	**22.1**	**21.5**

The biggest difference in social and economic background was between the children enrolling in Sure Start programmes vs Day Care Nurseries which was statistically significant ($p<.002$). As expected, the children in the Sure Start settings came from more socially and economically deprived backgrounds. There was a small but statistically significant difference between urban and rural children ($p<.02$), with the urban children being more socially and economically deprived. Social and economic background is well-known to affect developmental outcomes for children even at an early age (e.g., DCSF, 2009; Feinstein, 2003) so differences on this variable will be important when interpreting subgroup differences and children's outcomes across developmental domains.

2.1.3 Parents

In total 501 parents/guardians completed a questionnaire: 474 females (94.8%) and 26 males (5.2%) (1 missing). Almost 60% of the parents were aged between 25-35 years and the remainder were older rather than younger. Only 8% were between 18-25 years, see Table 3.

Table 3. Parent/guardian age range

Age group	Number	Percentage
18 – 25	40	8.0
26 – 35	290	58.4
36 – 45	161	32.4
46 – 54	5	1.0
Over 55	1	0.2
Missing	*4*	
Total	**501**	**100.0**

Table 4 presents the educational qualification reported from the parental questionnaires. Parents had a wide range of educational qualifications, but a high proportion – 42% - had qualifications at degree level or above (Level 4 or above), and only 2% reported no educational qualification. For the general population in Northern Ireland of same aged adults, 19.6,% have Level 4 qualifications or above, and 9.4% have no qualifications (from Northern Ireland Census, Table S320)

Table 4. Parents' highest level of educational qualification

Qualification	Number	Percentage
None reported	10	2.0
Secondary school	16	3.2
GCSE's/O-Levels	62	12.5
A Levels	28	5.6
Diploma/Certificate	47	9.5
Vocational Qualification	103	20.7
Degree	154	31.0
Postgraduate degree	55	11.1
Other	22	4.4
Missing	*4*	
Total	**501**	**100.0**

2.1.4 Practitioners

In total, 230 practitioners completed a questionnaire: 229 females (99.6%) and 1 male (0.4%). Almost 50% of the practitioners in the sample were less than 25 years of age, see Table 5.

Table 5. Practitioner age range

Age group	Number	Percentage
18 – 25	109	48.4
26 – 35	54	24.0
36 – 45	43	19.1
46 – 54	16	7.1
Over 55	3	1.3
Missing	*5*	
Total	**230**	**100.0**

80% of the practitioners reported having educational qualifications at the level of diploma/certificate and vocational qualifications as illustrated in Table 6.

Table 6. Practitioners' highest level of educational qualification

Qualification	Number	Percentage
None reported	6	2.6
Secondary school	2	0.9
GCSE's/O-Levels	7	3.0
A Levels	4	1.7
Diploma/Certificate	61	26.5
Vocational Qualification	123	53.5
Degree	20	8.7
Postgraduate degree	2	0.9
Other	5	2.2
Missing	*0*	
Total	**230**	**100.0**

Table 7 shows the breakdown of practitioner qualifications by setting type. It can be easily seen that there are no substantial differences between Day Nurseries and Sure Start programmes in terms of practitioner educational qualifications – *at least for practitioners working with this age group.*

Table 7. Setting type and level of practitioner educational qualifications

Qualification	Day Nursery		Sure Start Programme	
	Frequency	Percentage	Frequency	Percentage
None reported	6	3.3	0	0
Secondary school	2	1.1	0	0
GCSE	6	3.3	1	2.1
A Level	4	2.2	0	0
Diploma / certificate	47	25.7	14	29.8
Vocational qualification	98	53.6	25	53.2
Degree	14	7.7	6	12.8
Postgraduate qualification	2	1.1	0	0
Other	4	2.2	1	2.1
Total	**183**	**100.0**	**47**	**100.0**

Table 8 shows the length and specificity of the practitioners' experience of work in early years settings. The practitioners could be characterised as 'experienced' to 'very experienced' with almost 50% having worked in early years settings for more then 6 years and some who had worked for a considerably longer time. Only 6.5% had less then one year's experience. Their experience was also specific to working with 2-3 year olds, with almost 84% having more than 2 years experience. There was some evidence of movement in the workforce, with just over 30% reporting that they had worked in their current setting for less than one year.

Table 8. Practitioners' experience of working in early years settings

Experience	Duration	Frequency	Percentage
Working in an early years setting	Less than 1 year	15	6.5
	2 to 5 years	103	44.8
	6 to 10 years	70	30.4
	More than 10 years	42	18.3
	Total	**230**	**100**
Working with 2 to 3 year olds	Less than 1 year	37	16.1
	2 to 5 years	119	51.7
	6 to 10 years	53	23.1
	More than 10 years	21	9.1
	Total	**230**	**100**
Working in current setting	Less than 1 year	71	30.9
	2 to 5 years	101	43.9
	6 to 10 years	41	17.8
	More than 10 years	17	7.4
	Total	**230**	**100.0**

2.2. Outcomes and measures

2.2.1 Child outcomes and measures

The assessment tool used for the children was the Bayley Scales for Infant and Toddler Development, 3rd Edition (Bayley, 2006a, 2006b), commonly known as Bayley III, developed from the long established Bayley Scales. The Bayley can be used with infants and children aged from 1 month to 3 years and 6 months. In the latest revision, five domains of children's development are separately assessed – cognitive development, receptive and expressive communication, fine and gross motor movement. These domains are assessed through play-based tasks, where the children directly engage with specific test activities and their performance is rigorously assessed according to a strict marking protocol.

In addition, there are two new domains based on ratings from a person who observes the children in everyday settings (normally the parent). The Social-Emotional Scale is based on the Greenspan Social-Emotional Growth Chart (Greenspan, 2004) and measures how well children meet certain social-emotional milestones. The Adaptive Behaviour Scale is designed to measure the attainment of functional skills necessary for increased independence. It is based on the Adaptive Behaviour Assessment System – 2nd Edition (ABAS-II; Harrison and Oakland, 2003) and is divided into ten sub-scales. Only 6/10 of these scales were used, due to time considerations, specifically: Communication, Functional Academics, Self-Direction, Leisure and Social Interaction. The items on all the Adaptive Behaviour Scales consist of descriptions of specific behaviours and the rater checks the frequency with which the child performs the behavior "when it is needed" – always or almost always (3), sometimes(2), never or almost never (1), is not able (0). The Bayley-III scales have high reliability and validity.

For the current survey, the practitioners in the early years settings, rather than the parents, rated the children on the Social-Emotional Scales and the Adaptive Behaviour Scales. This decision was largely for practical reasons (e.g., not putting too great a burden on parents who were also required to complete parental questionnaires). Nevertheless, there were distinct advantages from using the practitioners as raters. They may not have had as extensive knowledge of any single child as a parent has, but they were in a position to draw on their experience of a larger number of children, and thus were well positioned to make comparative judgements about children's development. However, the norms for the scales are based on parents' ratings of their own children and, thus, cautious interpretations must be made based on the norms (for various reasons, see below).

Using the Bayley age-based norms from US samples, the average performance for each of the developmental domains has a scaled score of 10 and a standard deviation of 3. Because of the recency of the new Bayley III test, only the US norms were available for comparison at the time of testing in 2008. Subsequently, UK norms for Bayley III for a sample of 221 children aged from 10 months to 2 years 3 mths became available (Bayley, 2010 UK and Ireland Supplement Manual). Comparisons were made with both US and UK children – and slightly different findings emerged. These will be commented on when interpreting the findings of the survey. Table 9 provides a summary of the Bayley domains assessed for the survey.

Table 9. **Developmental Domains assessed by Bayley III**

Form of Assessment	Domain	Description For toddlers and children up to 3 years and 6 months
Domains Assessed through play-based tasks	***Cognitive*** *How the child thinks, reacts and learns about the world*	For toddlers, tasks examine how they explore new toys and experiences, solve problems and complete simple puzzles. As children get older, tasks measure pretend play, and activities such as building blocks, counting and solving more complex puzzles.
	Receptive Communication *How the child recognises sounds, understands spoken words and directions*	For toddlers, tasks require them to identify pictures and objects, follow simple instructions, perform social routines such as bye-bye and peek-a-boo. As children get older, they are asked to follow more complex directions, identify action pictures, and are given items to check their understanding of basic grammar (e.g., his/hers, boy's ball vs cat's ball, and prepositions such as *on, through, between*).
	Expressive Communication *How the child communicates using sounds, gestures and words*	Toddlers are given opportunities to use words by naming objects and pictures and answering questions. As children get older, they are given opportunities to display a wider use of words, to answer more complex questions, combine gestures and word, use multiple-word utterances, ask multiple-word questions, and begin to use basic grammar.
	Fine Motor Skills *How the child can use his or her hands and fingers to make things happen*	Toddlers are given the opportunity to perform tasks as stacking blocks, drawing simple shapes, placing small objects such as coins in a slot. As children get older, they are asked to draw more complex shapes, build simple structures using blocks, and use scissors to cut paper and other everyday objects.
	Gross Motor Skills *How the child can move his or her body*	Toddlers are given opportunities to crawl, make stepping motions, support their own weight, stand, and walk without assistance. As children get older, they are asked to climb stairs, run, maintain balance, kick a ball, and other activities requiring full body control and co-ordination.

Table 9 (Continued)

Form of Assessment	Domain	Description For toddlers and children up to 3 years and 6 months
Domains assessed through practitioner ratings	***Socio-emotional*** *How the child has developed with regard to certain social-emotional milestones*	Toddlers are rated on how often they take actions to get their needs met, to imitate others in play, on their use of imagination in play, and the child's use of words to communicate. As children get older, they are rated on their interactions with peers and adults, on their ability to explain what they need and why, to describe how they feel, and to use emotions in an interactive purposeful manner.
Scales from Adaptive Behaviour Assessment	***Communication*** *How effectively the child communicates through vocalisations, gestures, words and sentences*	Toddlers are rated on their ability to attract attention and communicate through simple gestures, to listen carefully, repeat words, follow simple commands, and name familiar objects. As children get older and as their language develops, they are rated on their use of sentences, their ability to ask questions, to describe their activities, to have conversations, and to refrain from interrupting.
	Functional Pre-Academics (not rated for children younger than one year) *How well the child can demonstrate emergent literacy skills*	Toddlers are rated on how whether they can point to pictures in books, hold a crayon or pencil with point down, attempt to imitate simple drawing, name colours. As children get older, they are rated on whether they can name and recognise shapes, recite nursery rhymes, count objects using their fingers, read own name, name letters in the alphabet, obey common signs (e.g., stop).
	Self Direction *How well the child can demonstrate self-control and emotional self-regulation, showing independence, following directions and making choices*	Toddlers are rated on how their exploration of unfamiliar situations, willingness to move away from parents, trying most routine things without adult help, following simple rules, persisting with hard tasks without quitting, not hitting out at other children when angry or upset. As children get older, they are rated on their capacity to work independently, asking for help only when necessary, controlling temper in the face of disagreements, following routines without being reminded, choosing own clothes, discussing ways to solve conflicts.

Table 9 (Continued)

Form of Assessment	Domain	Description For toddlers and children up to 3 years and 6 months
	Leisure *How well the child engages in play-related behaviours, joins in with others, and follows simple rules in games*	Toddlers are rated on whether they choose toys or games during play, can play with a toy for more than five minutes, play with other children and adults, and so on. As children get older, they are rated on whether they can play simple games with peers without adult supervision, invite others to join in, wait for own turn, play simple board games and can follow rules.
	Social Interaction *How well the child gets on with other people, showing social skills, helping others, recognising and expressing emotions*	Toddlers are rated on the way they respond to familiar and unfamiliar people, imitate the actions of adults, greet close members of the family and other children, share toys willingly, and show some degree of sympathy for others when they are sad or upset. As children get older, they are rated on how they seek friendship with peers, show helping behaviour, begin to adopt 'manners' (e.g., say hello, thank you, moving out of person's way), saying when they feel happy, sad, scared or angry, and recognising these emotional states in others.

2.2.2 Practitioner and parent outcomes and measures

Parents and practitioner self-report questionnaires were designed for the baseline survey. Their purpose was to survey the perceptions of the children's parents and the practitioners in the early years setting about the developmental needs of 2-3 year olds, and their associated actions and interactions with the children. The survey was not intended to be fully comprehensive and concentrated on specific areas – namely, play, movement and learning, and the adult-child interactions related to the children's social-emotional, physical and cognitive growth. In addition, as parental involvement is considered to be important for early years settings, questions were included in both the parents' and the practitioners' survey about their current experiences and satisfaction with the level of communication and working partnerships between parents and early years settings.

Table 10 gives an overview of the topics that were covered in the survey, the numbers of questions per topic and the sources of the items. There were 89 items in the practitioner questionnaire and 79 in the parent version. Additional questions asked for demographic information, and for details of educational qualifications.

Table 10. **Practitioner and parent outcomes and related survey questions**

Outcome	Practitioner Survey	Parent Survey
Increased recognition of the importance and the different purposes of play in the development of two-year-old children; *and increased frequency in providing different types of play opportunities, both indoors and outdoors.*	9 questions eliciting viewpoints about play and the role of adults in children's play (Section 2) 10 questions asking about the frequency of different types of play opportunities and use of play materials in the early years setting during a typical week (Section 3) 13 questions about the frequency of different types of interactions during play in the early years setting during a typical day (Section 4)	8 questions eliciting viewpoints about play and the role of parents in children's play (Section 2) 17 questions about the frequency of providing play opportunities and play material for their child during a typical week (Section 3)
Increased responsiveness in practitioners'/parents' interactions and engagement with two-year-old children in order to support their communication, social, emotional, physical and cognitive development needs.	21 questions derived from the Child Caregiver Interaction Scale (Carl, 2007).[1] Items relate both to children's social and emotional development as well as to cognitive stimulation for learning (Section 6)	Four subscales (24 items) of the Tool for Parental Self-Efficacy, TOPSE (Kendall & Bloomfield, 2005; Bloomfield & Kendall, 2007)[2] were used – Emotion and Affection, Play and Enjoyment, Empathy and Understanding, Learning and Knowledge (Section 5)
Increased recognition of the importance of movement for two-year-old development and how it can be related to wider developmental goals (e.g. language, cognitive, social-emotional, as well as motor development)	19 questions about the importance of different types of movement and physical activities, and whether the activities were planned for in the early years setting (Section 5)	11 questions about parents' views on the role of movement and physical activities for children's learning (Section 4)

[1] For the purposes of this study, practitioners were asked to rate themselves on 21 statements derived from the Child Caregiver Interaction Scale (Carl, 2007). This scale is based on developmentally appropriate principles as outlined by the National Association for the Education of Young Children (Bredekamp, 1997), now updated (NAEYC, 2009). Statements selected for self-rating cover adult-child interactions primarily related to the child's social and emotional development (11 statements) and interactions related to providing cognitive stimulation and support for the children's learning (10 statements).

[2] Four subscales of the Tool for Parental Self-Efficacy, TOPSE (Kendall & Bloomfield, 2005; Bloomfield & Kendall, 2007) were used to measure this outcome in parents. The TOPSE was developed specifically to evaluate the impact of parenting programmes in the UK and it is a very useful tool to evaluate parents' confidence about parenting, their beliefs about discipline and setting boundaries, as well as their sense of enjoyment about playing with their children and being sensitive and responsive to their children's needs.

Table 10 (Continued)

Increased recognition of the importance of working in partnership with practitioners/ parents around the developmental needs of two-year-old children, increased opportunities to communicate with parents, and increased satisfaction with the communication.	19 questions on current practices and levels of satisfaction in the early years settings on working with partners (Section 7)	19 questions on current practices and levels of satisfaction experienced by parents working with early years settings (Section 6)

2.3 Procedure

All data collection was undertaken by a team of fieldworkers who were fully trained and coordinated by the research team.

2.3.1 Bayley III

15-20 fieldworkers were trained as Bayley III assessors by the UK national Bayley trainer in August, 2008. Each child for whom parental written consent had been provided was individually tested in the early years setting on the assessment tasks. Practitioners completed the individual child ratings during the period that fieldworkers were visiting the settings. All testing for the baseline survey was completed between October 2008 and January 2009.

2.3.2 Practitioner and Parent Questionnaires

For the baseline survey, the questionnaires were distributed to practitioners during their initial training sessions (for those who would subsequently participate in the Eager and Able to Learn programme) and to parents at their first workshop (for parents who participated in the Eager and Able to Learn programme). For the other settings, questionnaires were distributed to the settings, practitioners and parents by the fieldworkers during their first visits to assess the children. Parents and practitioners could either return the questionnaire in a sealed envelope to the fieldworker or post it (freepost) back to the research team at Queen's. Special efforts were made by the Early Years staff to maximize the return of questionnaires, especially from parents who were not attending workshops at that point in time.

3. Findings

3.1 Child outcomes

3.1.1 The total sample

Table 11 below reports the means and standard deviations for the Bayley scaled scores for the total sample across each developmental domain that was measured. The scaled score is an age-related normed score. It has a range of 1-19, a mean of 10 and a standard deviation of 3. An average score of 10 means that children are developing as would be expected with reference to children of the same age according to the norms. The general expectation is that 68% of any sample will fall within one standard deviation above and below the mean, gaining scores between 7 and 13 according to the norms. The norms are based on a US sample (Bayley, 2006a). Table 11 shows the means and standard deviations of the scores for the baseline survey sample. Also shown is the standardised measure of how higher or lower these mean scores are compared to the norm of 10.

Table 11. Scaled score means for each of the Bayley developmental domains: Total sample

Developmental domain	N	Mean	Standard Deviation	Effect Size Cohen's D*
Cognitive	646	10.53	2.43	+.21***
Receptive communication	646	11.57	2.68	+.59***
Expressive communication	641	11.16	3.07	+.38***
Fine motor	646	11.22	2.58	+.47***
Gross Motor	645	9.57	3.01	-.14***
Socio-emotional	612	10.74	3.42	+.22***
Communication	620	9.69	3.23	-.10*
Functional Academics	620	9.63	2.88	-.13**
Leisure	619	9.08	3.11	-.30***
Self direction	613	9.77	3.66	-.06 ns
Social	619	8.97	3.18	-.32***

The surveyed sample of 655 Northern Ireland children was above average and scored statistically significantly higher than 10 in four of the five domains assessed through the Bayley play-based tasks; in one domain, gross motor development, the sample scored significantly lower than 10. The rank order for the five domains was Receptive Communication (11.57), Fine Motor (11.22), Expressive Communication (11.16), Cognitive (10.53) and Gross Motor (9.57), see Table 11 for effect sizes. This means that, *on average*, the 2-3 year old children in the sample were more advanced than expected in four domains (Cognitive, Receptive Communication, Expressive Communication and Fine Motor) and slightly less advanced in one domain (Gross Motor). However, Figures 1- 5 also show that there was wide variation between same-aged children in their development across all domains.

The Social-Emotional and Adaptive Behaviour domains for the Bayley were assessed through questionnaires and were rated by practitioners from the settings. The items on all the Adaptive Behaviour Scales consisted of descriptions of specific behaviours and the practitioners checked the frequency with which the child performed the behavior "when it is needed". The surveyed sample scored statistically significantly lower than 10 on 4/6 domains (Communication, Functional Academics, Leisure, Social Interaction) and significantly higher than 10 in one domain (Social Emotional), see Table 11 for effect sizes. However, these questionnaires are normally completed by parents who have more extensive knowledge of the children than the practitioners were presumed to have at the point of data collection, so caution should be exercised in interpreting the *absolute* levels of the scores. Nevertheless, the rank order showed the following pattern: Social Emotional (10.74) which was rated on a separate questionnaire and had to be adapted for use by practitioners; Self-Direction (9.77), Communication (9.69), Functional Academics (9.63), Leisure (9.08) and Social Interaction (8.97). The latter Adaptive Behaviour scales are intended to assess the extent to which the children show that they can meet the everyday demands of taking care of themselves with increasing independence and effectively interacting with other children and adults. Children were rated as less advanced than their same age peers on 4/5 of these scales and particularly those scales relating to playful interactions (Leisure) and more general social skills (Social Interaction). Figures 6-11 show that there was wide variation between same-aged children in their development across all domains.

Figure 1. Bayley III Cognitive Scale: Distribution of Children's Standardised Scores

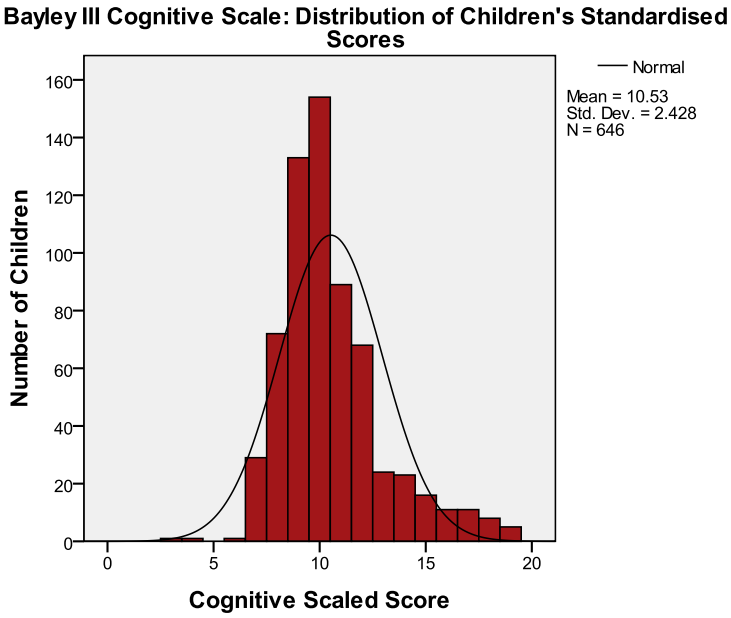


Figure 1 shows the distribution of the Bayley III scores for the Cognitive scale. The distribution very closely approximated a normal distribution (a perfectly normal distribution is shown by the black line), with a mean of 10.53 and a standard deviation of 2.428. The distribution is skewed to the right, showing that a greater proportion of children had relatively higher scores (e.g., above 15) than lower scores (e.g., below 5), and that their cognitive development was much more advanced than their same aged peers in the normed data. Only two children had very low scores (less than two standard deviations below the mean). It should be remembered that the scores for Bayley scales *at the level of individual children* should be interpreted very cautiously. Children can perform poorly on a test on a particular day for a variety of reasons, and thus the score may not appropriately reflect the child's developmental level. Interpretation of individual children's Bayley scores should be accompanied by a full history of the child and their context, as would be the case when the Bayley is used for diagnostic purposes.

Note that the unweighted UK Bayley norms for the Cognitive Scale has a mean of 10.72 and a standard deviation of 2.72. So, while the current mean is significantly greater than the US norm, it matches more closely the normative expectations for UK children, though it is still significantly smaller than the UK sample mean ($p<.04$).

Figure 2. Bayley III Receptive Communication Scale: Distribution of Children's Standardised Scores

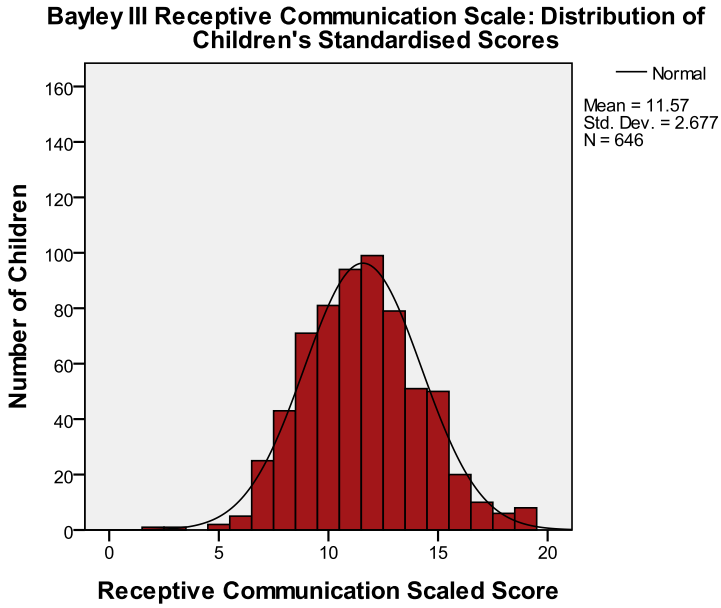


Figure 2 shows the distribution of the Bayley III scores for the Receptive Communication scale. The distribution is normal (a perfectly normal distribution is shown by the black line), with a mean of 11.57 and a standard deviation of 2.68. On average, the children were significantly more advanced than their same aged peers in the US normative sample, indicating that the children had well established abilities to recognise sounds, understand spoken words and to follow directions – for their age. However, the distribution was slightly wider on this scale than on the Cognitive scale, indicating that there were more individual differences between the children on this scale than on the Cognitive scale. A small number of children had very high scores (more than two standard deviations above the mean), showing that their cognitive development was much more advanced

than their same aged peers. Very few children had very low scores (less than two standard deviations below the mean).

Note that the unweighted UK Bayley norms for the Receptive Communication Scale has a mean of 10.29 and a standard deviation of 2.89, so these children were also performing significantly better (p<.0001) than the normative expectations for UK children (a full set of UK norms for children of different ages is not available).

Figure 3. Bayley III Expressive Communication Scale: Distribution of Children's Standardised Scores

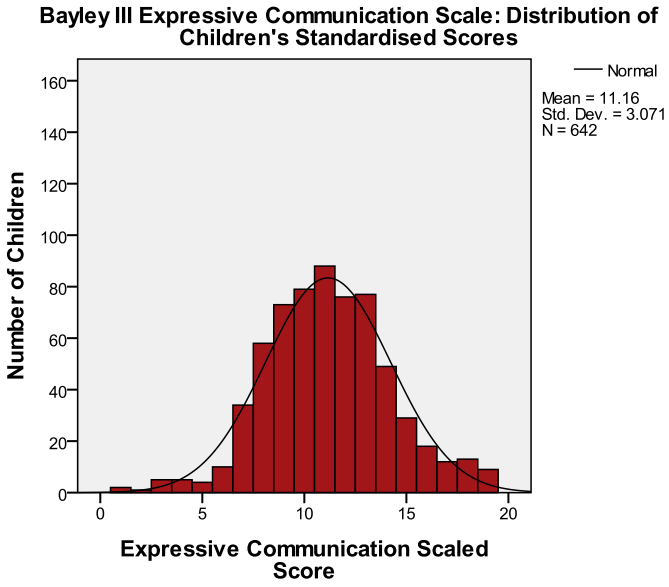


Figure 3 shows the distribution of the Bayley III scores for the Expressive Communication scale. The distribution is normal (a perfectly normal distribution is shown by the black line), with a mean of 11.16 and a standard deviation of 3.07. On average, the children were more developmentally advanced than their same aged peers in the US normative sample, indicating that the children could communicate well through sounds, words and gestures. Despite this, they were not as developmentally advanced in *communicating through language* as they were *in understanding language*. In addition, the distribution was slightly wider on this scale than on the Receptive Communication scale, indicating that there were more inidividual differences between same-aged children. A minority of children had very high scores (more than two standard deviations above the mean), showing that their expressive language development was much more advanced than their same aged peers. A few children had very low scores (less than two standard deviations below the mean) and there was a slightly longer 'tail' to the distribution on this scale compared to others.

Note that the unweighted UK Bayley norms for the Expressive Communication Scale has a mean of 10.27 and a standard deviation of 2.76, so these children were also performing significantly better (p<.0001) than the normative expectations for UK children (a full set of UK norms for children of different ages is not available). However, the 'gap' between receptive and expressive communication was not evident in the UK normative sample.

Figure 4. Bayley III Fine Motor Scale: Distribution of Children's Standardised Scores

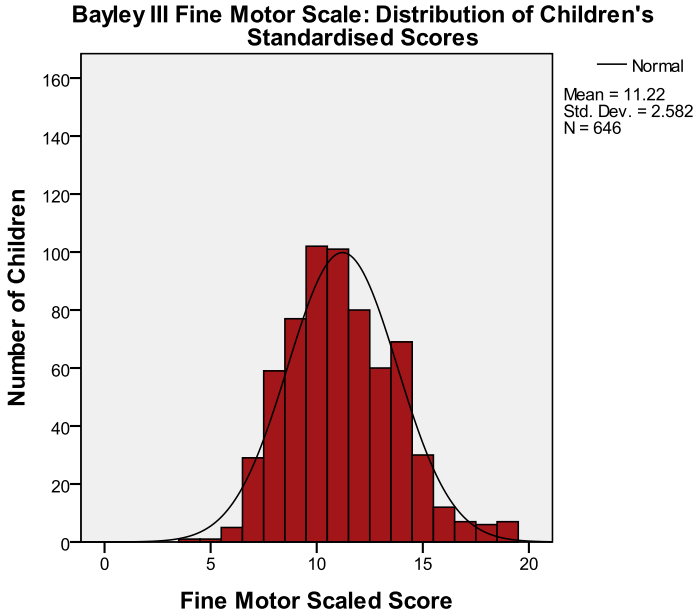


Figure 4 shows the distribution of the Bayley III scores for the Fine Motor scale. The distribution is approximately normal (a perfectly normal distribution is shown by the black line), with a mean of 11.22 and a standard deviation of 2.58. The distribution is skewed to the right, showing that a greater proportion of children had relatively higher scores (e.g., above 15) than lower scores (e.g., below 5), and that their fine motor development was much more advanced than their same aged peers. On average, the children were more developmentally advanced than their same aged peers in the US normative sample, indicating that the children could use their fingers well to manipulate small objects. Compared to the other scales, the standard deviation was smaller and was most similar to the Cognitive scale. The overall shape of the distribution of scores for the Fine Motor Scale was most similar to the Cogntive Scale.

Note that the unweighted UK Bayley norms for the Fine Motor Scale has a mean of 10.93 and a standard deviation of 2.51, so these children were also performing significantly ($p<.001$) better than the normative expectations for UK children (a full set of UK norms for children of different ages is not available).

Figure 5. Bayley III Gross Motor Scale: Distribution of Children's Standardised Scores

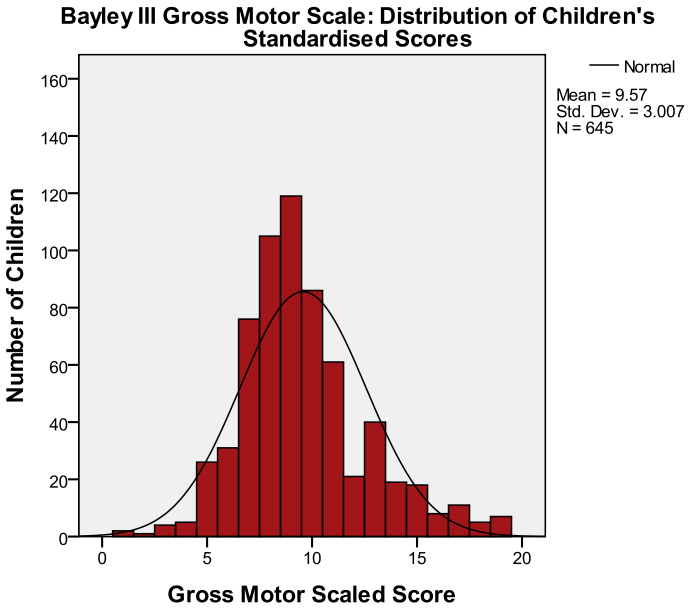


Figure 5 shows the distribution of the Bayley III scores for the Gross Motor scale. The distribution is approximately normal (a perfectly normal distribution is shown by the black line), with a mean of 9.57 and a standard deviation of 3.01. On average, the children were less developmentally advanced than their same aged peers in the US normative sample, indicating that the children did not have well developed control over the body movements. In addition, the distribution was wider on this scale than on the Fine Motor scale, indicating that there were more individual differences between same-aged children on this scale.

Note that the unweighted UK Bayley norms for the Gross Motor scale has a mean of 9.12 and a standard deviation of 2.83; so, while these children were performing worse than same aged US children, they were significantly better than the normative expectations for UK children (a full set of UK norms for children of different ages is not available). The important point here is that, for UK children (including Northern Ireland children in this sample), it is misleading to combine the scores from the Fine Motor and Gross Motor scales to create a composite Motor score, as the underlying means and distributions reveal important differences. This point is emphasied in the UK and Ireland Supplement Manual to the UK standardisation (Bayley, 2010, p. 9)

Figure 6. Bayley III Social-Emotional Scale: Distribution of Children's Standardised Scores

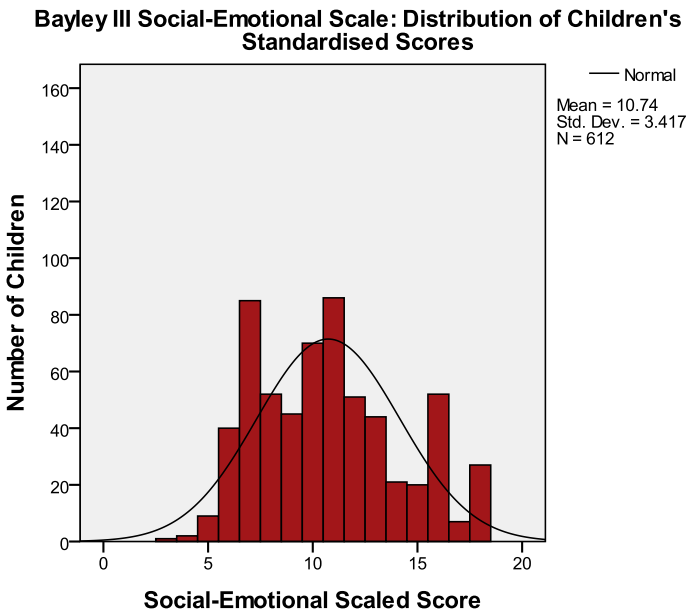


Figure 6 shows the distribution of the Bayley III scores for the Social Emotional scale, which is rated by practitioners in the settings. The mean score for the children was 10.74 with a standard deviation of 3.42. The shape of the distribution is jagged which could reflect the method of completing the scale (raters are asked to stop at various age points). This scale identifies the achievement of 'emotional milestones' which are qualitatively different from one another and the shape of the distribution appeared to show three 'peaks'. On average, the children were more developmentally advanced than their same aged peers in the US normative sample. Close inspection of the distribution of scores show that the majority of children cluster around two peaks (scores of 7 and 11) with a small number have higher scores (over 15).

Note that there are no UK norms for the Bayley rating scales. It should also be remembered that these Bayley scales were rated by the practitioners in the early settings while the US norms were based on ratings by parents.

Figure 7. Bayley III Communication Scale: Distribution of Children's Standardised Scores

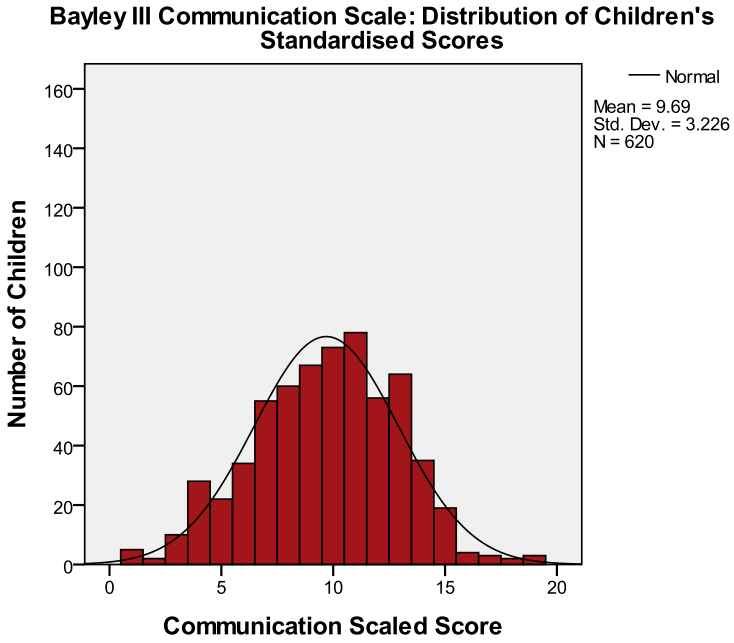


Figure 7 shows the distribution of the Bayley III scores for the Communication scale, which is rated by practitioners in the settings. The distribution was approximately normal (a perfectly normal distribution is shown by the black line), with a mean of 9.69 and a standard deviation of 3.23. Also, the distribution was skewed to the left which means that a greater proportion of children have relatively low scores (e.g., below 5) than high scores (e.g., above 15). On average, the children were less developmentally advanced than their same aged peers in the US normative sample, indicating that the children were not communicating as expected through gestures, words and sentences. In addition, the distribution was slightly wider on this scale compared to other rating scales, showing that there were more individual differences between same-aged children. A small number of children had very high scores (more than two standard deviations above the mean), and their their expressive language development was much more advanced than their same aged peers. A few children had very low scores (less than two standard deviations below the mean) and there was a slightly longer 'tail' to the distribution on this scale compared to others.

Note that there are no UK norms for the Bayley rating scales. It should also be remembered that these Bayley scales were rated by the practitioners in the early settings while the US norms were based on ratings by parents.

Figure 8. Bayley III Functional Pre-Academic Scale: Distribution of Children's Standardised Scores

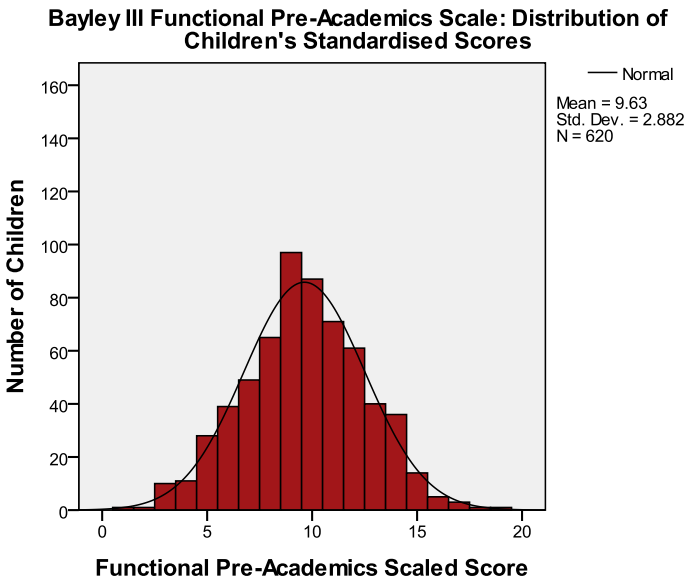


Figure 8 shows the distribution of the Bayley III scores for the Functional Pre-Academics scale, which is rated by practitioners in the settings. The distribution was normal (a perfectly normal distribution is shown by the black line), with a mean of 9.63 and a standard deviation of 2.88. On average, the children were less developmentally advanced than their same aged peers in the US normative sample, indicating that the children were a little behind in their emergent literacy skills. A small number of children had very high scores (more than two standard deviations above the mean), showing that their emergent literacy development was much more advanced than their same aged peers. Very few children had very low scores (less than two standard deviations below the mean.

Note that there are no UK norms for the Bayley rating scales. It should also be remembered that these Bayley scales were rated by the practitioners in the early settings while the US norms were based on ratings by parents.

Figure 9. Bayley III Self-Direction Scale: Distribution of Children's Standardised Scores

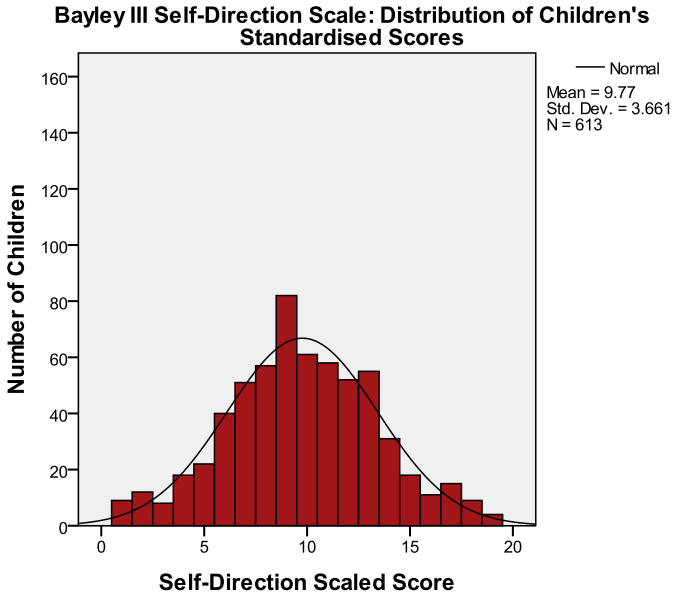


Figure 9 shows the distribution of the Bayley III scores for the Self-Direction scale, which is rated by practitioners in the settings. The distribution was normal (a perfectly normal distribution is shown by the black line), with a mean of 9.77 and a standard deviation of 3.66. On average, the children were less developmentally advanced than their same aged peers in the US normative sample, indicating that the children were less able than expected to demonstrate self-control, show independence, follow directions and make choices. A distinctive feature was the wide distribution of the scores, with the highest standard deviation of all scales at 3.661. This means that there were wide individual differences between same-aged children. A minority of children had very high scores (more than two standard deviations above the mean), showing that their capacity to self-direct was much more advanced than their same aged peers. However, a minority also children had very low scores on this scale.

Note that there are no UK norms for the Bayley rating scales. It should also be remembered that these Bayley scales were rated by the practitioners in the early settings while the US norms were based on ratings by parents.

Figure 10. Bayley III Leisure Scale:
Distribution of Children's Standardised Scores

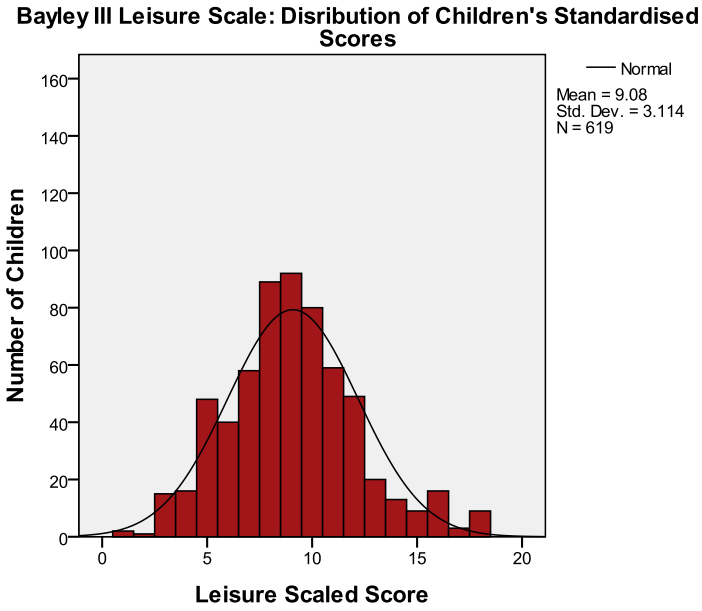


Figure 10 shows the distribution of the Bayley III scores for the Leisure scale, which is rated by practitioners in the settings. The distribution was normal (a perfectly normal distribution is shown by the black line), with a mean of 9.08 and a standard deviation of 3.114. On average, the children were less developmentally advanced than their same aged peers in the US normative sample, indicating that the children were less well able than expected to engage in play-related behaviours, joining in with others and following simple rules. A small number of children had very high scores (more than two standard deviations above the mean), showing that their playful development was much more advanced than their same aged peers. Very few children had very low scores (less than two standard deviations below the mean).

Note that there are no UK norms for the Bayley rating scales. It should also be remembered that these Bayley scales were rated by the practitioners in the early settings while the US norms were based on ratings by parents.

Figure 11. Bayley III Social Scale:
Distribution of Children's Standardised Scores

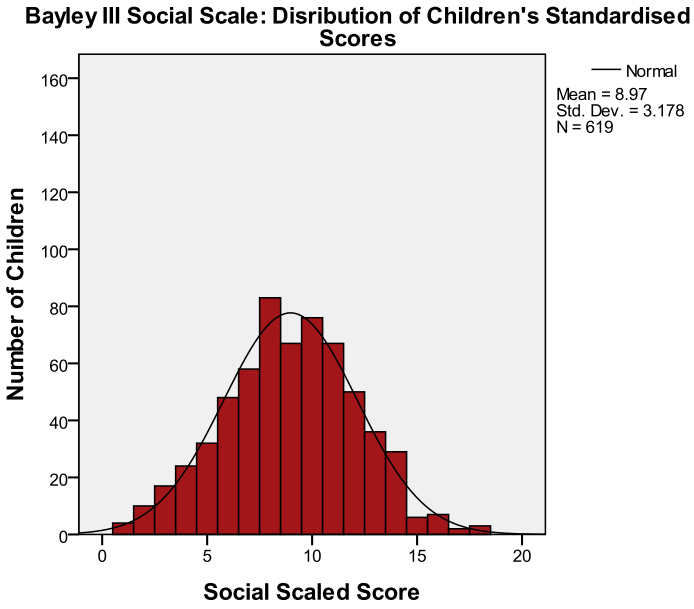


Figure 11 shows the distribution of the Bayley III scores for the Social scale, which is rated by practitioners in the settings. The distribution was approximately normal (a perfectly normal distribution is shown by the black line), with a mean of 8.97 and a standard deviation of 3.18. Also, the distribution was skewed to the left which means that a greater proportion of children have relatively low scores (e.g., below 5) than high scores (e.g., above 15). This scale had the lowest recorded mean for all eleven scales. Thus, the children appeared to be less developmentally advanced than their same aged peers in the US normative sample, indicating that the children were were not highly skilled in getting on with other people, helping others, sharing and expressing emotions. A very small number of children had very high scores (more than two standard deviations above the mean), showing that they were much more advanced than their same aged peers. A substantial minority of children had low scores (below 5) and there was a slightly longer 'tail' to the distribution on this scale compared to others.

Note that there are no UK norms for the Bayley rating scales. It should also be remembered that these Bayley scales were rated by the practitioners in the early settings while the US norms were based on ratings by parents.

3.1.2 Differences in child outcomes by gender

Table 12 below reports the means and standard deviations for the Bayley scaled scores for boys and girls across each developmental domain that was measured, together with the levels of statistical differences between the means. In general, the girls' scores were significantly higher than the boys, with the exception of the Gross Motor scale where there was no difference.

Table 12. Scaled score means for each of the Bayley developmental domains: Gender differences

Developmental domain		N	Mean	Standard deviation	F	p
Cognitive	Boys	334	10.32	2.47	4.79	0.029
	Girls	312	10.74	2.37		
Receptive communication	Boys	334	11.25	2.64	9.33	0.002
	Girls	312	11.89	2.68		
Expressive communication	Boys	331	10.63	3.10	20.88	0.001
	Girls	310	11.72	2.94		
Fine motor	Boys	334	10.74	2.57	23.99	0.001
	Girls	312	11.72	2.50		
Gross motor	Boys	334	9.51	3.07	0.22	0.637
	Girls	311	9.63	2.94		
Socio-emotional	Boys	313	10.22	3.29	15.32	0.001
	Girls	299	11.29	3.48		
Adaptive behaviour						
Communication	Boys	319	9.24	3.31	12.85	0.001
	Girls	301	10.17	3.07		
Functional academics	Boys	320	9.31	3.02	8.47	0.004
	Girls	300	9.98	2.69		
Leisure	Boys	320	8.85	3.16	4.09	0.044
	Girls	299	9.36	3.04		
Self direction	Boys	315	9.11	3.57	23.81	0.001
	Girls	298	10.52	3.59		
Social	Boys	320	8.63	3.19	8.15	0.004
	Girls	299	9.35	3.11		

3.1.3 Social deprivation and developmental outcomes

Table 13 shows the mean scores across the Bayley scales for children who were categorised according to the Multiple Deprivation Score (MDS), based on the children's postcodes. The MDS ranged from 2.28 (high affluence) to 80.36 (high deprivation) and the distribution was highly skewed towards high affluence. The sample was thus divided into four quartiles, creating social deprivation categories named (for convenience) as High Affluence (MDS mean=6.4, range 2.28-9.81); Medium Affluence (MDS=14.2, range 9.82-18.38); Medium Deprivation (MDS=23.8, range 18.43-29.55); High Deprivation (MDS=41.44, range 29.56-80.36). Statistical tests showed that there were significant differences between the four groups for 8/11 Bayley domains. From the post-hoc analyses, the most consistent finding was that the High Deprivation children scored significantly lower than the other three groups, although there were also some significant differences between the other groups, and in the expected direction.

Table 13. Scaled score means for each of the Bayley developmental domains: Multiple Deprivation differences

Outcome	High Affluence *Mean (SD)*	Medium Affluence *Mean (SD)*	Medium Deprivation *Mean (SD)*	High Deprivation *Mean (SD)*	F	Significance *p*
Cognitive	10.93 (2.35)	10.79 (2.60)	10.76 (2.42)	9.63 (2.11)	10.38	0.001
Receptive communication	11.80 (2.54)	11.66 (2.76)	11.65 (2.75)	11.17 (2.63)	1.70	0.167
Expressive communication	11.23 (3.10)	11.48 (2.99)	11.47 (2.98)	10.47 (3.13)	3.92	0.009
Fine motor	11.32 (2.33)	11.36 (2.75)	11.65 (2.74)	10.53 (2.37)	5.62	0.001
Gross motor	9.53 (3.02)	9.39 (2.79)	10.20 (3.27)	9.16 (2.86)	3.58	0.014
Social-emotional	11.25 (3.47)	10.73 (3.40)	10.94 (3.56)	10.01 (3.12)	3.67	0.012
Communication	9.94 (3.10)	9.82 (3.19)	9.75 (3.34)	9.24 (3.27)	1.45	0.228
Functional Pre-Academics	9.99 (2.91)	9.63 (2.81)	9.59 (2.90)	9.31 (2.90)	1.47	0.222
Leisure	9.37 (2.67)	9.21 (2.97)	9.48 (3.49)	8.25 (3.16)	5.08	0.002
Self direction	10.18 (3.55)	10.06 (3.64)	9.82 (3.58)	9.01 (3.80)	3.24	0.022
Social	9.39 (3.02)	9.17 (3.12)	9.01 (3.18)	8.29 (3.32)	3.51	0.015

3.1.4. Differences in child outcomes by urban/rural location

Table 14 below shows that children attending settings in rural locations scored significantly higher than children attending settings in urban locations on 6/11 Bayley scales: Cognitive, Receptive Communication, Expressive Communication, Fine Motor, Gross Motor, and Leisure (practitioner rated). There were no significant differences between the groups on any of the other developmental domains. Rural settings had a significantly lower Multiple Deprivation Score (MDS) than urban settings (see Table 2), i.e., were more advantaged and this underlying factor is likely to account for the differences observed below.

Table 14. Scaled score means for each of the Bayley developmental domains: Urban vs rural settings

Developmental domain		N	Mean	Standard deviation	F	p
Cognitive	Urban	493	10.27	2.29	23.00	0.001
	Rural	153	11.33	2.69		
Receptive communication	Urban	493	11.43	2.64	4.44	0.036
	Rural	153	11.95	2.76		
Expressive communication	Urban	490	11.00	2.96	5.93	0.015
	Rural	151	11.69	3.35		
Fine motor	Urban	493	11.03	2.59	10.34	0.001
	Rural	153	11.80	2.47		
Gross motor	Urban	492	9.22	2.85	29.93	0.001
	Rural	153	10.71	3.22		
Socio-emotional	Urban	473	10.67	3.41	0.77	0.381
	Rural	139	10.96	3.45		
Adaptive behaviour						
Communication	Urban	478	9.62	3.17	0.94	0.333
	Rural	142	9.92	3.43		
Functional academics	Urban	477	9.67	2.75	0.32	0.572
	Rural	143	9.52	3.30		
Leisure	Urban	476	8.89	2.97	9.36	0.002
	Rural	143	9.79	3.48		
Self direction	Urban	476	9.70	3.61	1.48	0.225
	Rural	137	10.13	3.77		
Social	Urban	476	8.85	3.12	3.58	0.059
	Rural	143	9.42	3.30		

3.1.5 Summary

Before summarising the main findings, it is important to remember two points. Firstly, the survey was conducted during the first few months after the children entered into early settings for 2-3 year olds. The survey did NOT evaluate the effects of the different early years settings on the children's development; it merely assessed their developmental stage close to the point of entering the setting.

Secondly, with regard to interpreting the performance of the Northern Ireland sample, the sample is NOT a representative sample of Northern Ireland 2-3 year old children, as it included only those children who attend Day Care nurseries and Sure Start settings, not children who were looked after by child-minders, relatives and parents. Also, a substantial proportion of the children's parents (42%) had educational qualifications at degree level or above.

Compared to same aged children in the US (on whom the norms were constructed), this sample of Northern Ireland children were slightly above average on 4/5 developmental domains assessed through the play-based tasks (cognitive, receptive and expressive language, and fine motor movement) and slightly below average in one domain, gross motor movement. This dissociation between fine motor and gross motor development has been reported for other UK samples. For the socio-emotional and adaptive behaviour domains that were rated by the practitioners, the children were slightly below average for 5/6 domains (communication, functional academics, self-direction,

play and leisure, and social interaction) and slightly above average on one – social emotional development.

The graphical distributions of the scores for the total sample show how important it is to recognise that there were substantial individual differences between same-aged children, and it is difficult to identify what can be expected from the 'typical' 2-3 year old.

Girls scored significantly higher than boys on all the Bayley scales, except on gross motor movement, where there was no difference between the groups.

The children's developmental outcomes were associated with the multiple deprivation scores. Children who lived in more socially and economically deprived areas had poorer developmental outcomes across a range of scales. The effect was most obvious for those children who came from the most socially deprived areas.

Children who attended the rural settings scored significantly higher than urban children on all five Bayley developmental domains that were assessed through the play-based tasks, but only one significant difference emerged between the groups in the domains assessed by the practitioner ratings. The former findings might be related to the social and economic background of the children enrolled in the rural settings, who tended to come from more affluent backgrounds than the children enrolled in the urban settings.

Gross motor development stood out as being influenced differently than the other domains – at least those domains assessed through the Bayley play-based tasks. For example, there were no differences between boys and girls in their gross motor development; gross motor development was influenced by social deprivation but not in the expected direction, On the other hand, children in Rural settings had better gross motor development than children in Urban settings

3.2 Parent outcomes

3.2.1 Outcome 1

Recognition of the importance, and the different purposes, of play, in the development of 2 year old children; and increased frequency in providing different types of play opportunities, both indoors and outdoors.

The role of parents in children's play

Section 2 of the parental questionnaire explored what parents thought about children and their play, and particularly probed the 'interactional' role that parents might adopt in children's play. Parents were asked to rate how strongly they agreed or disagreed with eight statements. Figures 12-19 below show the percentage of parents agreeing and disagreeing with each statement.

Figure 12
Q 2.1: Children are best left to play on their own.

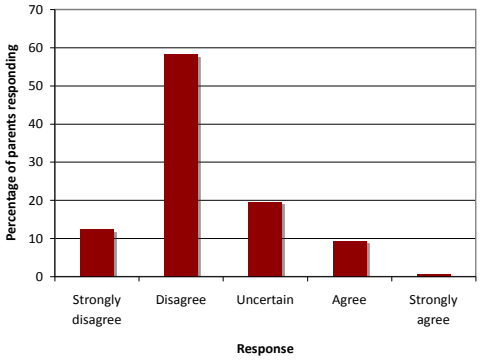


Figure 13
Q 2.2: Some children find it hard to know how to play on their own.

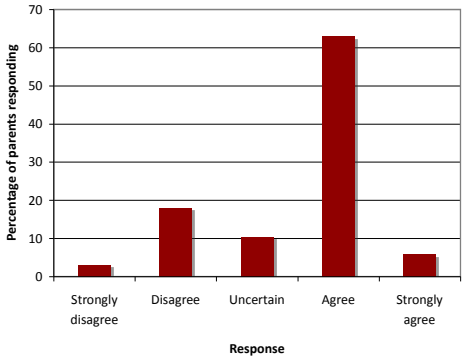


Figure 14
Q 2.3: Some children find it hard to know how to play with other children.

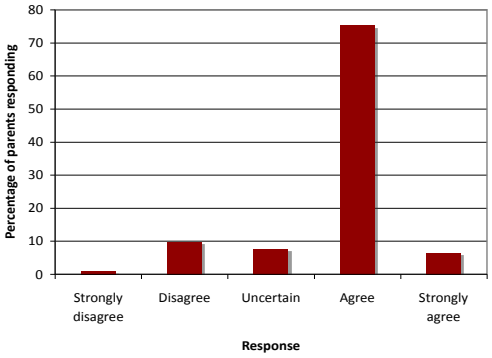


Figure 15
Q 2.4: Parents need to help and encourage children to play.

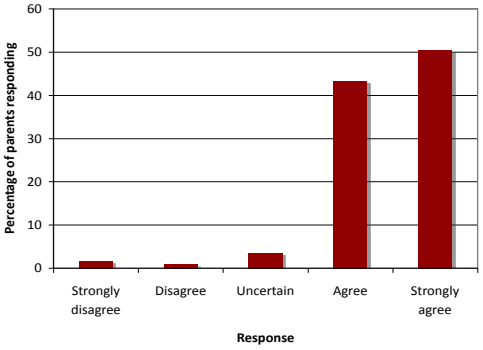


Figure 16
Q 2.5: It is enough for parents just to watch children playing.

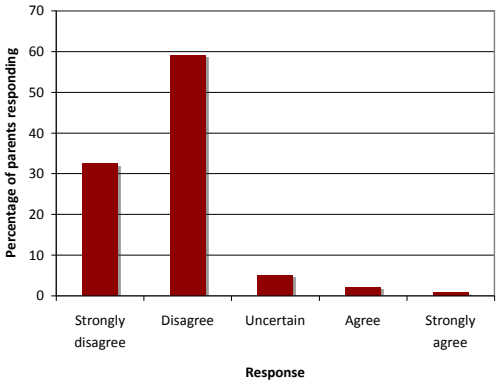


Figure 17
Q 2.6: Parents should join in and play alongside the children to make the most of their play.

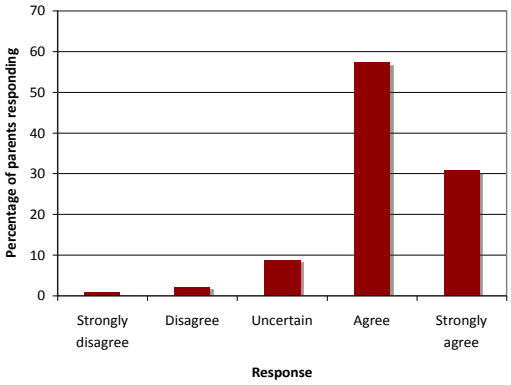


Figure 18
Q 2.7: Parents spoil children's play by getting in the way.

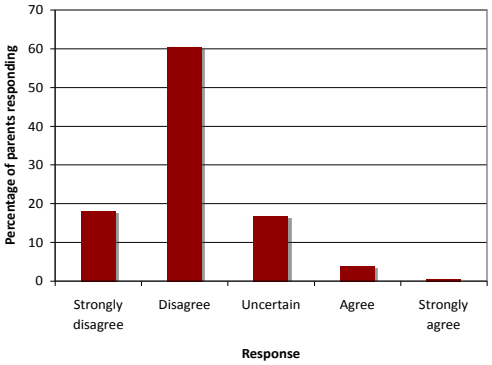
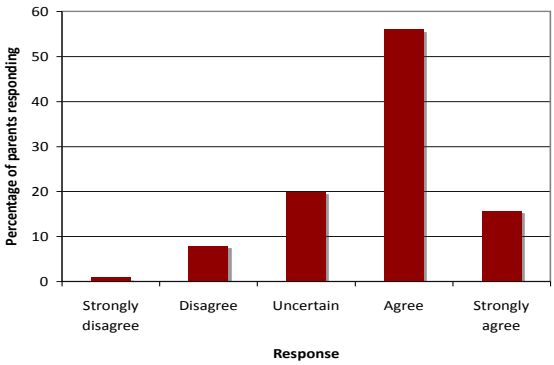


Figure 19
Q 2.8: Children should follow their own interests when playing.



Summary

The parents in the sample held strong views about the positive and interactional role that they had in promoting children's play.

Over 90% of the parents agreed/strongly agreed that 'parents need to help and encourage children to play' (Figure 15), and that 'parents should join in and play alongside the children to make the most of their play (Figure 17). Equally, 90% of parents disagreed/strongly disagreed that 'it is enough for parents just to watch children playing' (Figure 16) and 70% disagreed/strongly disagreed that 'children are best left to play on their own' (Figure 12).

The majority (70-75%) also acknowledged that 'some children find it hard to know how to play with other children' (Figure 14) and that 'some children find it hard to know how to play on their own' (Figure 13).

Despite their proactive views about parent's role in children's play, 70% also agreed/strongly agreed that 'children should follow their own interests when playing (Figure 19).

A smaller minority of parents (10-15% depending on the question) were more uncertain about the parents' role in play and a small minority expressed contrary views to the majority. The strongest contrary view emerged for the question 'some children find it hard to know how to play on their own' where 20% of the parents disagreed/disagreed strongly with that statement (Figure 13).

Different types of play

Section 3 of the parental questionnaire explored the frequency with which parents engaged in different types of play with their children. Table 15 below ranks the type of play in order of reported frequency.

The following scale was used:
Less than once a week = 1
Once a week = 2
2-3 times a week = 3
Daily = 4.

Table 15. Type of play in order of reported frequency: Parents' responses

Type of play	Mean	Rank
Use books and pictures for story telling	3.81	1
Let my child watch TV or DVDs	3.61	2
Deliberately set aside time to play with my child	3.54	3
Use songs and dance in a playful way	3.49	4
Encourage my child to play outdoors	3.48	5
Provide time during routines such as bathing, feeding etc	3.46	6
Provide everyday or household items for my child to play with	3.43	7
Provide time for my child to jump and climb	3.34	8
Encourage my child to play in the back yard/garden	3.33	9
Encourage my child to do colouring in	3.30	10
Encourage my child to play with toys such as jigsaws	3.21	11
Encourage my child to play with toys that make noise and have flashing lights	3.12	12
Encourage rough and tumble play	3.05	13
Encourage my child to play with outdoor equipment	3.04	14
Encourage my child to play with materials that make different sounds, have different colours, have a different feel to them	2.93	15
Encourage messy play	2.50	16
Take my child to the park to play	2.13	17

The two activities that were most frequently reported were sedentary-type activities – 'use books and pictures for story telling' and 'let my child watch TV or DVDs' and they were reported almost on a daily basis. The least frequently reported types of play were 'encourage messy play' and 'take my child to the park to play' – both of these were reported on average as taking place once a week. Overall, a good variety of playtime and playful activities were reported as occuring on more than a weekly basis, and these included examples of playing outdoor ('encourage my child to play outdoors', 'provide time for my child to jump and climb', 'encourage rough and tumble play', 'encourage my child to play with outdoor equipment').

3.2.2 Outcome 2

Responsiveness in interactions and engagement with 2 year old children in order to support their communication, social, emotional, physical and cognitive development needs.

Parental Responsiveness to their Children and Their Feelings of Self-Efficacy as a Parent

Four subscales of the Tool for Parental Self-Efficacy, TOPSE (Kendall & Bloomfield, 2005; Bloomfield & Kendall, 2007) were used to measure this outcome in parents. The TOPSE was developed specifically to evaluate the impact of parenting programmes in the UK and it is a very useful tool to evaluate parents' confidence about parenting, their beliefs about discipline and setting boundaries, as well as their sense of enjoyment about playing with their children and being sensitive and responsive to their children's needs.

Four subscales were identified as particularly relevant for the baseline survey; three scales focussed on parental enjoyment and sensitivity and the fourth scale asked parents about their ability to share their experiences as a parent and to learn from other parents. The subscales were called:

- Emotion and Affection: asked parents to rate themselves on the extent to which they felt they were able to show affection towards their child, could recognise when the child was

happy or sad and could understand why, were confident that their child would come to them if they were unhappy, etc.

- Play and Enjoyment: asked parents to rate themselves on the extent to which they felt they were able to have fun with their child, experience 'nice' days, plan activities the child will enjoy, etc.
- Empathy and Understanding: asked parents to rate themselves on the extent to which they could listen to their child, comfort them, put themselves in the child's shoes, etc.
- Learning and Knowledge: asked parents to rate themselves on the extent to which they could share ideas with other parents, were able to learn and use new ways of dealing with their child, were able to make changes needed to improve the child's behaviour, and felt that they could overcome most problems with a bit of advice, etc.

The scale used for the TOPSE ranged from zero (completely disagree) through to 10 (completely agree). Table 16 details the mean score and standard deviation for each of the subscales used.

Table 16. Tool for Parental-Self-Efficacy (TOPSE): Subscale means and standard deviations

TOPSE subscale	N	Minimum	Maximum	Mean	S.D.
Emotion and affection	494	4.17	10	7.89	0.55
Play and enjoyment	494	4.83	10	9.30	0.81
Empathy and understanding	492	4.83	10	8.76	0.96
Learning and knowledge	491	5.50	10	8.75	1.02

Overall, parents showed mid-to-high levels of self-efficacy with regard to parenting. They rated themselves highest on the Play and Enjoyment subscale with a mean score which was very close to the highest possible rating of 10. The lowest rating was on the Emotion and Affection subscale, but even on that subscale the mean score was 7.89. Parents also expressed high levels of confidence in their ability to share and learn from other parents, and to change their behaviour and act on advice from others.

3.2.3 Outcome 3

Recognition of the importance of movement for 2-year old development and how it can be related to wider developmental goals (e.g., language, cognitive, social-emotional, as well as motor development).

Parents' perceptions of the role of movement in children's learning

In Section 4 parents were asked to rate how relevant they thought children's physical movement and activity was in terms of developing various skills in children. Table 17 below ranks parents' responses to this question in order of reported relevance.

This scale was scored so that:
5 = very relevant
4 = a little relevant
3 = uncertain
2 = not very relevant
1 = not at all relevant

Table 17. Perceived relevance of physical movement to developing skills in children: Parents' responses

Developing skill	Mean	Rank
Q4.4 Keeping children fit and healthy	4.99	1
Q4.2 Helping children's imagination	4.89	2
Q4.6 Burning off excess energy	4.85	3
Q4.5 Helping children to better understand the world around them	4.75	4
Q4.7 Helping children get on with other children	4.72	5
Q4.3 Helping children communicate how they are feeling	4.63	6
Q4.8 Helping children play games like football or hockey when they are older	4.63	6
Q4.1 Learning new words	4.46	8
Q4.11 Helping children be better at problem solving	4.36	9
Q4.9 Helping children be better at reading in the future	3.85	10
Q4.10 Helping children be better at writing in the future	3.84	11

Not surprisingly, parents considered that physical movement was 'very relevant' for 'keeping children fit and healthy' and there was almost unanimous agreement about this (mean=4.99).

Beyond that, the parents considered physical movement as 'a little relevent/very relevant' to a wide range of children's learning (e.g., helping children to better understand the world around, getting on with other children, communicating how they are feeling). Physical movement was considered least relevant to learning specific cognitive skills either now or in the future (e.g., learning new words, problem-solving, reading and writing in the future).

The relevance of physical movement for helping children develop sports skills so that they could participate in games like football or hockey when they are older, was not given a very high rating but was considered as just one of many potential benefits among others.

3.2.4 Outcome 4

Recognition of the importance of working in partnership with parents around the developmental needs of 2-year old children, increased opportunities to communicate with parents, and increased satisfaction with the communication.

Parents working in partnership with early years settings

Parents were firstly asked how important they felt the involvement of parents in a child's education is. Four per cent (4%) answered 'Quite Important' and the remaining 96% answered 'Very Important'.

They were then asked to what extent they thought that they worked in partnership with their child's setting to promote learning and development. Over 85% of parents responded 'Often' or 'Almost always'.

Questions 6.4 to 6.19 required parents to rate how strongly they agreed or disagreed with various statements about their child's setting. Figures 20-34 below illustrate the distribution of the responses.

Figure 20

Q 6.4: The setting shares information with parents concerning the overall running of the nursery.

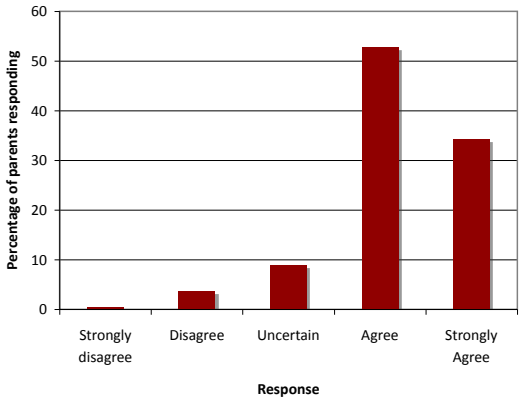


Figure 21

Q 6.5: I prefer to commnicate with my child's setting by appointment only at specific time.

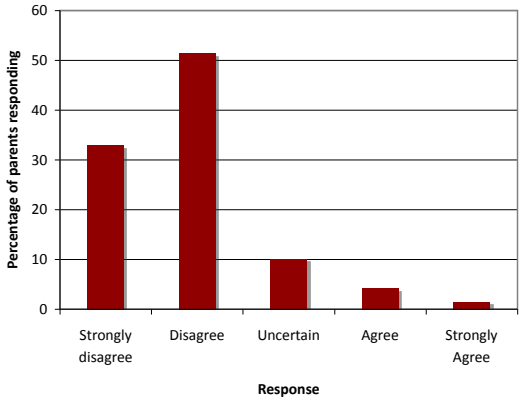


Figure 22

Q 6.6: I feel there is an atmosphere of open communication in my child's setting.

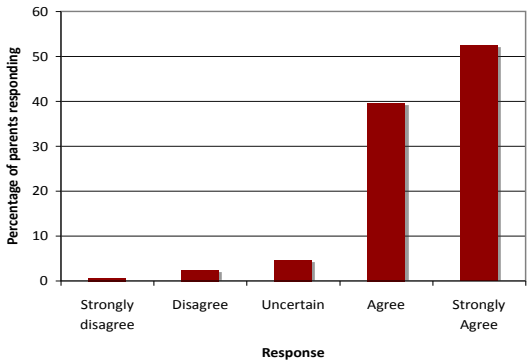


Figure 23

Q 6.7: Parents can disturb the children if they are frequently in the setting.

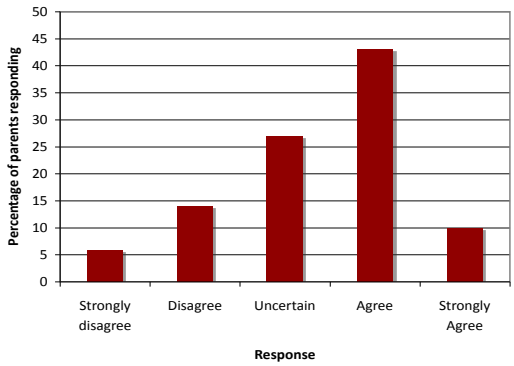


Figure 24

Q 6.8: On a daily basis I have the opportunity to chat with staff in the setting. can do to help this along.

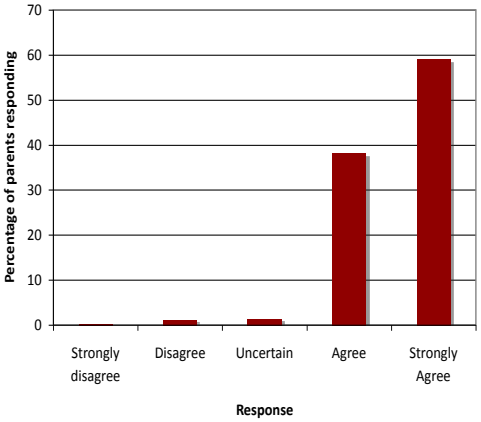


Figure 25

Q 6.9: The setting staff talk to me about my child's development and what we

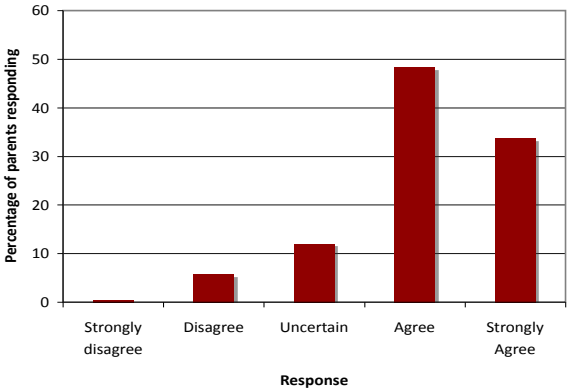


Figure 26

Q 6.10: The main purpose of sending children to nursery/playgroup is to help their development and learning.

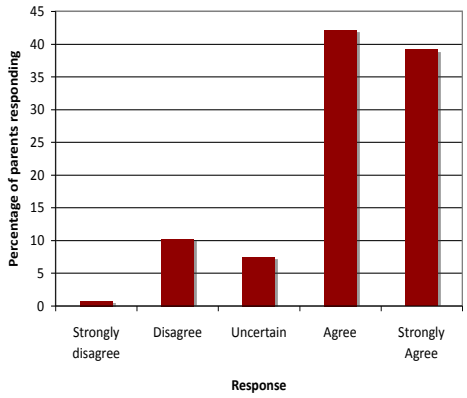
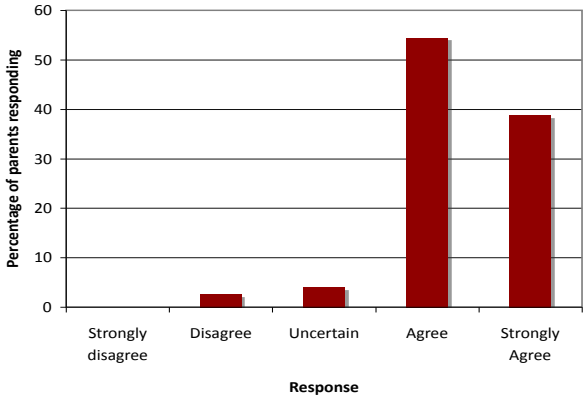


Figure 27

Q 6.11: I am given the opportunity to share my views, concerns and wishes with the staff in my child's setting.



.***Figure 28***

Q 6.12: I feel that the responsibility for my child's development lies solely with the staff in the setting when my child is with them.

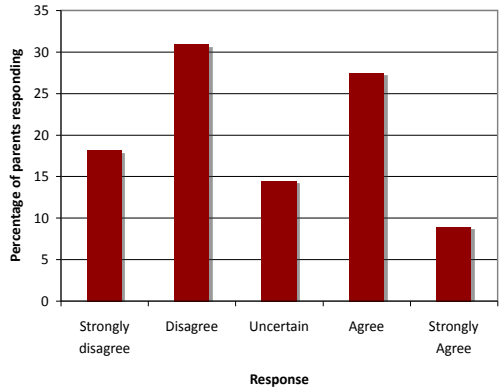
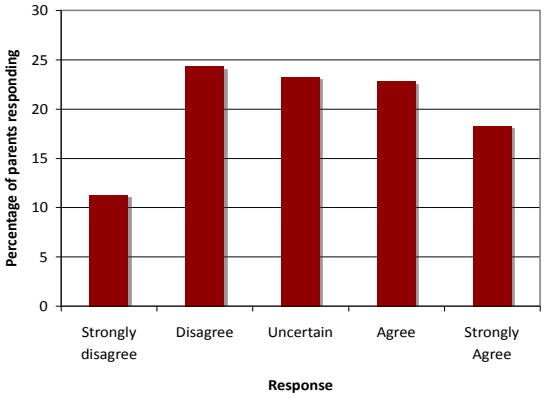


Figure 29

Q 6.14: I am encouraged to be involved with joint activities with my child's setting.



Question 6.13 has been omitted (it was factual question requiring a YES/NO answer, not a rating)

Figure 30

Q 6.15: The adults' main role in the setting is to look after and mind the children.

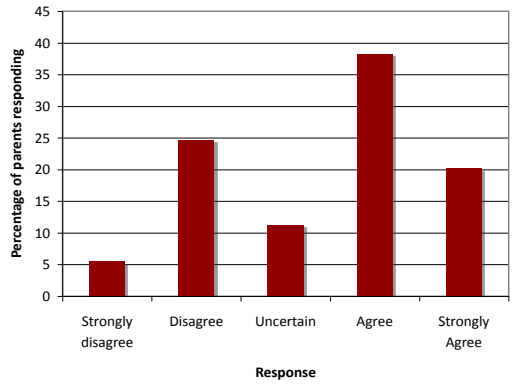


Figure 31

I am valued by my child's setting as a partner in my child's education and care.

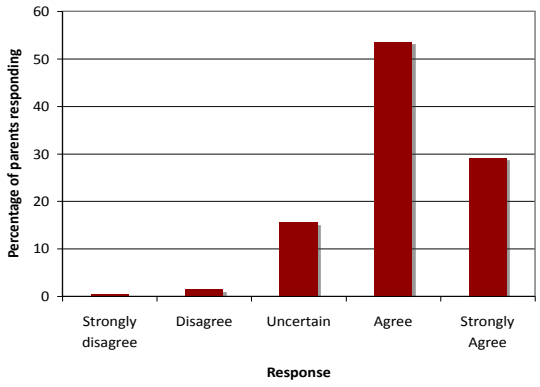


Figure 32
Q6.17: My child's setting provides me with materials and training to help my child's development.

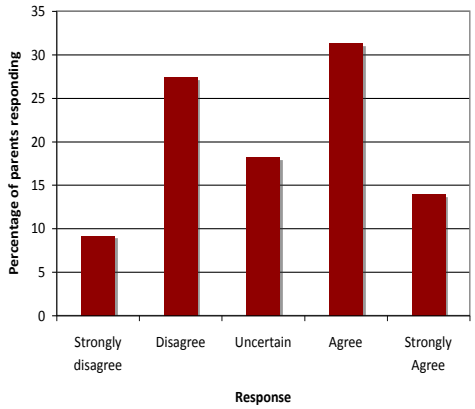
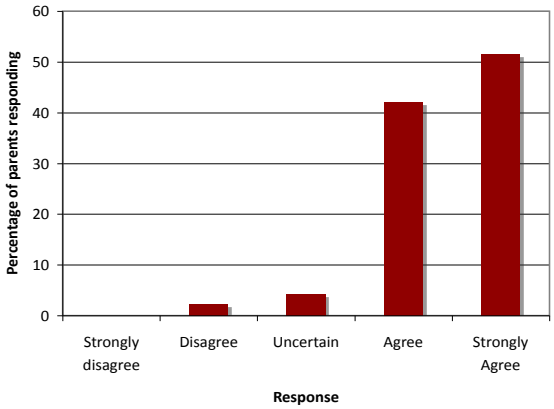
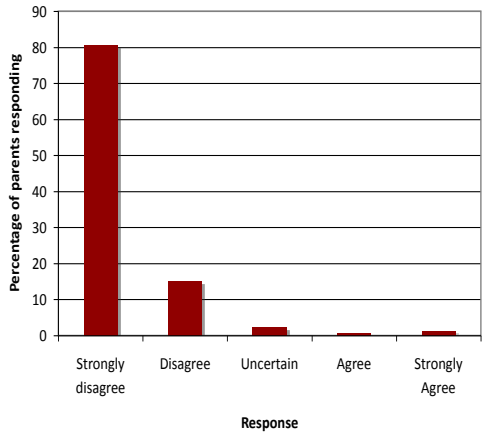


Figure 33
Q 6.18: Overall I am satisfied with the level and quality of communication I have with my child's setting.



.***Figure 34***
Q 6.19: Sharing care and educational information with parents is a waste of time.



The vast majority of the parents (80-95% depending on the precise question) were satisfied with the way the setting shared information with them about the running of the nursery (Figures 20 and 33), with the atmosphere of open communication (Figure 22), with opportunities to talk with staff (Figure 24) and to share their views and concerns (Figure 27). They strongly disagreed that sharing care and educational information with parents was a waste of time (Figure 34).

When the questions probed more deeply about feelings of joint responsibilities (Figure 28) and joint activities (Figures 29 and 32), there was less agreement among parents about their experiences. Clearly, some settings encouraged parents to participate in joint activities, and extended the work of the setting to home, to a greater extent than did others.

3.3 Practitioner outcomes

3.3.1 Outcome 1

Recognition of the importance, and the different purposes, of play, in the development of 2 year old children; and increased frequency in providing different types of play opportunities, both indoors and outdoors.

The role of adults in children's play

There is considerable interest in the early years research and practice literature (e.g., DCFS, 2009) in the role that a practitioner adopts in children's play and this can reflect the beliefs that they hold about children and play. Section 2 of the practitioner questionnaire explored what practitioners thought about this topic. Practitioners were asked to rate how strongly they agreed or disagreed with nine statements. Figures 35-43 below show the percentage of practitioners agreeing and disagreeing with each statement.

Figure 35
Q2.1: Children are best left to play by themselves

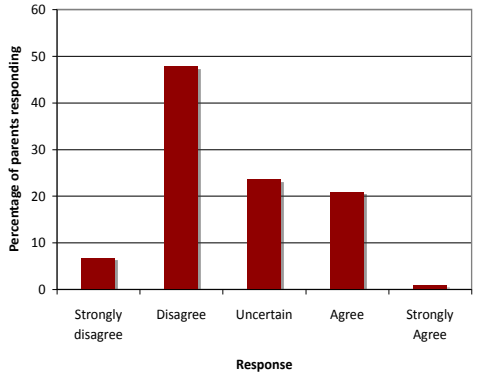


Figure 36
Q 2.2: Some children find it difficult to know how to play.

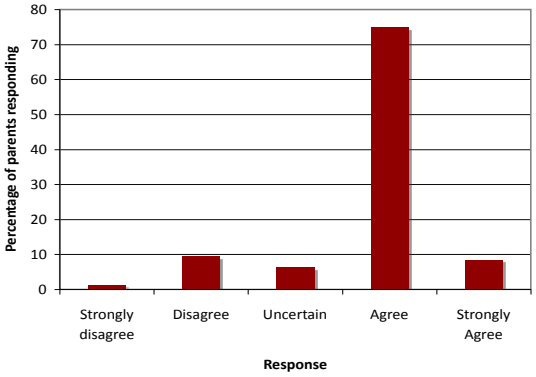


Figure 37
Q 2.3: Children's play needs to be stimulated and extended by adults.

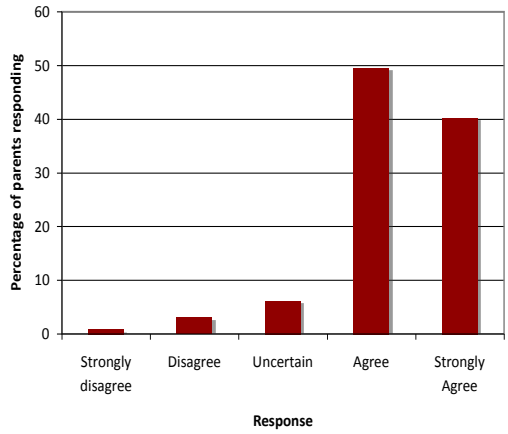


Figure 38
Q 2.4: It is enough for adults just to watch children playing.

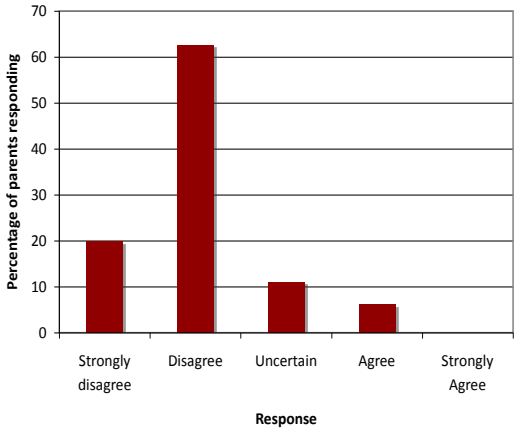


Figure 39

Q2.6: Adults should join in and play alongside children.

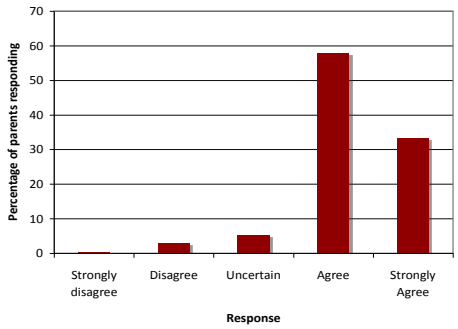


Figure 40

Q 2.7: Adults interfere and restrict children's play.

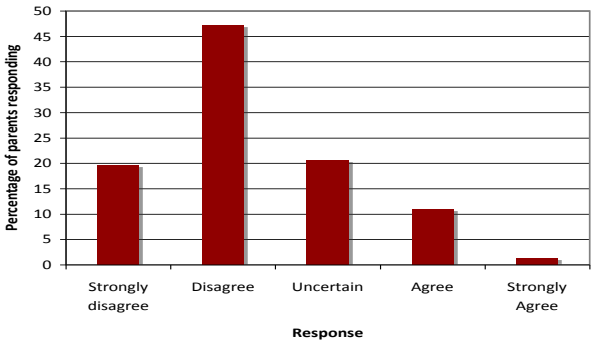


Figure 41

Q 2.8: Children should follow their own interests when playing.

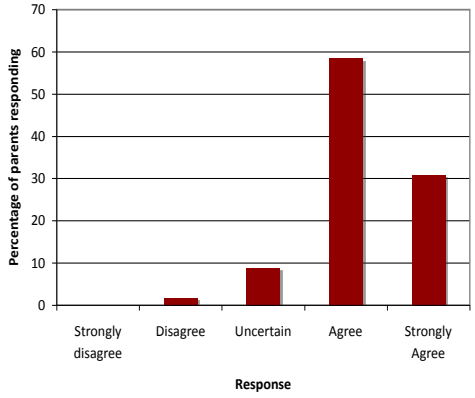


Figure 42

Q 2.5: The adult's role in playgroups/nurseries is to promote children's learning.

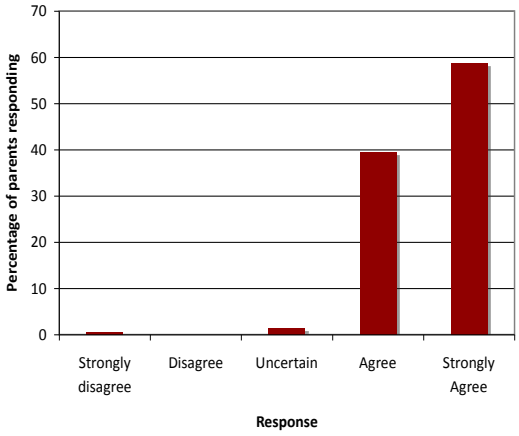
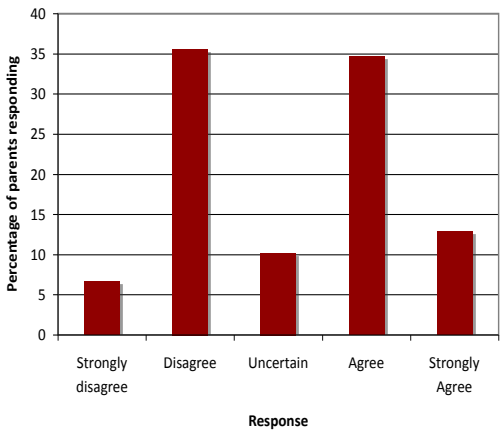


Figure 43

Q2.9 The adult's main role in playgroups/ nurseries is to look after and mind the children.



Practitioners' views about children's play were very similar to parents and they had strong views about the positive role of adults in children's play. The vast majority (80-90% depending on the question) agreed/strongly agreed that children's play needs to be stimulated and extended by adults (Figure 37); that adults should join in and play alongside children (Figure 39); that some children find it difficult to know how to play (Figure 36); and they disagreed/strongly disagreed that adults should just watch children playing (Figure 38). There was almost unanimously agreement that children should follow their own interests when playing (Figure 41).

But there were also some tensions and mixed views expressed. A minority (20%) felt that children were best left to play by themselves and another 20% were uncertain (Figure 35). There was also some uncertainty and mixed views about whether adults interfere with and restrict children's play (Figure 40). While a majority disagreed/strongly disagreed with the statement (65%) the remainder were uncertain or agreed. Taken the results of these two statements together, there is a substantial minority of practitioners who think that it is probably best to let children play by themselves and that adults should stay out of it.

Two questions directly probed practitioners' beliefs about the main purposes of the playgroups and nurseries for this age group and the role of adults – whether their main role should be to promote the children's learning or to 'look after and mind' the children. There was almost unanimous agreement that the adults' role is to promote learning (Figure 42) and a greater diversity of views about the main role being about looking after and minding the children (Figure 43).

Section 3 of the practitioner's questionnaire explored the different opportunities and materials that practitioners provide for play and practitioners were asked to rate how frequently they provided such opportunities and materials. Table 18 below ranks their responses.
The following scale was used:
Less than once a week = 1
Once a week = 2
2-3 times a week = 3
Daily = 4.

Table 18 shows that practitioners were reporting doing the majority of the different types of play between 2-3 times a week (3) and daily (4).

Table 18. Reported frequency of activities in settings: Practitioners' responses

Activity	Mean	Rank
Q3.9 Use books and picture books for storytelling	3.90	1
Q3.3 Encourage children to play indoors and outdoors	3.87	2
Q3.8 Use songs and rhymes in a playful way	3.84	3
Q3.2 Provide materials such as crumpled paper, cardboard boxes, playdough, crayons, finger paints etc	3.72	4
Q3.5 Create and use space where children can move and play safely	3.68	5
Q3.1 Deliberately plan for both quiet and active types of play	3.67	6
Q3.7 Encourage dance through music and rhythm	3.46	7
Q3.4 Deliberately plan activities to stimulate different senses	3.31	8
Q3.6 Use simple props to play movement games	3.16	9
Q3.10 Use number games	2.87	10

Using books and picture books for storytelling was reported most frequently – daily by almost all the practitioners who responded. Using number games was reported least frequently but even that they were used more than once a week. From these reported frequencies, practitioners were clearly using a wide range of materials, opportunities and activities for children's play.

3.3.2 Outcome 2

Responsiveness in interactions and engagement with 2 year old children in order to support their communication, social, emotional, physical and cognitive development needs.

Practitioners' self-reported interactions and responsivity with children

This outcome was evaluated in Sections 4 and 6 of the practitioner questionnaire. Section 4 asked practitioners specifically about their interactions with the children during play, and Section 6 asked them about their more general style of interaction with the children.

The first set of questions asked specifically about their practices related to play.
The following scale was used:
Very rarely/never = 1
Seldom = 2
Sometimes = 3
Often = 4
Almost always = 5

Table 19 ranks the frequency of their responses and shows that practitioners were reporting engaging in most practices with high frequency, either 'often' (4) and 'almost always' (5).

Table 19. Reported frequency of types of interactions during play: Practitioners' responses

Type of interaction	Mean	Rank
Q5.6 Accept invitations to join in children's play	4.68	1
Q5.3 Give choices and alternatives to increase children's independence	4.56	2
Q5.2 Use words and conversation to explain what is happening during play	4.55	3
Q5.10 Observe children closely while they are playing to find out more about them as individual	4.52	4
Q5.4 Encourage new ways to play such as pretend play	4.41	5
Q5.1 Let the children practice and repeat activities	4.40	6
Q5.9 Ensure that all children are drawn into play	4.39	7
Q5.11 Help children express and label their feelings during play	4.17	8
Q5.5 Introduce new ideas and guide play	4.13	9
Q5.12 Ask the children questions while they are playing	4.06	10
Q5.8 Model and demonstrate to children how to use objects and equipment to extend their play	4.04	11
Q5.13 Leave children to play by themselves	3.14	12
Q5.7 Direct the children's play	3.10	13

The most frequently reported types of play interactions could be classified as adults 'facilitating' play. The less frequently reported play interactions described adults as taking a deliberately guided or even directed approach to play. One of the least frequently reported practice was leaving children to play by themselves, and that was reported as happening 'sometimes'.

In general, the vast majority of practitioners reported interacting in a facilitating play style 'often' or 'almost always'. The main difference emerged for the more guided and directed approaches to play interactions, where some practitioners reported that they adopted this approach 'sometimes' whereas others reported that they 'very rarely/never' used it.

Section 6 asked practitioners about their more general style as a practitioner and asked them to rate how frequently they engaged in a variety of different ways with the children in their setting. Practitioners' general style of interaction is normally assessed by observing their practice, using a standard observation instrument. For the purposes of this study, practitioners were asked to rate themselves on 21 statements derived from the Child Caregiver Interaction Scale (Carl, 2007). This scale is based on developmentally appropriate principles as outlined by the National Association for the Education of Young Children (Bredekamp, 1997), now updated (NAEYC, 2009). Statements selected for self-rating cover adult-child interactions primarily related to the child's social and emotional development (13 statements, positively and negatively phrased) and interactions related to providing cognitive stimulation and support for the children's learning (8 statements, positively and negatively phrased).

The following scale was used:
Very rarely/never = 1
Seldom = 2
Sometimes = 3
Often = 4
Almost always = 5

The table below shows the mean frequency rating per statement. The statements are then ranked from those that are most frequently practiced (often/almost always) to those that are least frequently practiced (seldom/rarely/never). They are then grouped together under two headings, Social and Emotional Interactions and Cognitive Stimulation and Support for Learning.

The practitioners reported engaging in developmentally appropriate interactions with the children with high levels of frequency. For example, 13 of the positively phrased types of interactions were reported as being engaged in 'often' (4) or 'almost always' (5). The highest reported levels were in the social emotional domain (highest three statements) rather then the cognitive stimulation domain; although positive interactions in both domains were reported with high frequencies. The practitioners reported low frequencies of interactions with the children that would be characterised as developmentally inappropriate – see negatively phrased statements towards the end of the two lists - social and emotional interactions and cognitive stimulation and support. Although there was good agreement among the practitioners on the majority of the statements, several statements revealed differences between them, with some practitioners reporting that they engaged in the interaction often/almost always (4s and 5s) and others seldom/rarely/never (1s and 2s) This pattern was particularly evident on Qs 9.17 (directing children's activities), Q9.19 (ignoring children when they misbehave), Q9.21 (letting children get on with their own activities) and to a lesser extent on Q 9.9 (helping children express and label their feelings).

Table 20. Frequency of different types of interaction with children: Practitioners' responses

Type of Interaction	Mean	Rank
Social and Emotional Interactions		
Q9.10 I deliberately encourage positive behaviour in children such as sharing, turn taking and helping	4.85	1
Q9.16 When I talk to the children I kneel, bend down or sit at their level to establish better eye contact	4.83	2
Q9.2 I make a point of using a warm and cheerful tone of voice with the children	4.78	3
Q9.4 I find it easy to show affection to the children and to give them hugs and cuddles	4.64	4
Q9.12 I try to identify opportunities when children are being particularly 'good' and praise them	4.59	7
Q9.8 I can spot if a child is getting distressed, restless or aggressive and step in as appropriate	4.55	8
Q9.1 I make sure that I have a good variety of toys for the children to avoid disputes between them	4.42	9
Q9.20 I have enough information about the children to take their different cultural and social backgrounds into account	4.33	10
Q9.6 I make time each day to give individual attention to each child	4.18	12
Q9.9 I use methods to help the children express and label their feelings	4.06	13
Q9.19 I try to ignore the children when they misbehave	2.19	18
Q9.7 Despite my best intentions, I can get irritated and be impatient with the children	1.97	19
Q9.14 I can be abrupt with the children when they misbehave	1.72	21
Cognitive Stimulation and Support for Learning		
Q9.5 I spend time talking to the children, rephrasing and expanding their language	4.64	4
Q9.18 I use books and pictures for story telling so that the children can understand what books are for	4.64	4
Q9.13 I try to explain the reason for things in order to encourage the children to think for themselves	4.26	11
Q9.11 I put toys and objects out of sight when children lose interest and bring them out again at a later point	3.84	14
Q9.17 I tend to direct activities and keep the children occupied	3.64	15
Q9.21 I like to let the children just 'get on' with their own activities	3.01	16
Q9.3 I expect the children to be obedient and follow a strict routine	2.48	17
Q9.15 I tend to expect too much from the children	1.73	20

3.3.3 Outcome 3

Recognition of the importance of movement for 2-year old development and how it can be related to wider developmental goals (e.g., language, cognitive, social-emotional, as well as motor development).

The role of movement in the children's learning

Section 5 asked practitioners about the movement and learning of 2 -3 year olds. Some questions were asked about the importance they placed on very specific aspects of physical movement (hand-eye co-ordination, balance, body sense, body co-ordination) and how they planned for these.

They were asked the extent to which they thought it was important to develop these aspects of development (on a scale of 1 to 5 from 'not so important' to 'very important') and the extent to which they deliberately planned activities to address this aspect of development (on a scale of 1 to 5 from 'very rarely' to 'almost always'). Table 21 below summarises practitioners' responses. The first four questions were about specific forms of movement development and the remaining questions were about the purposes of movement for the general development of children across other domains.

Table 21. Importance of various aspects of motor and physical development and extent to which such activities are planned by practitioners.

	How important is it to do this?	To what extent to you plan for this?
	Mean score	Mean score
Develop hand eye coordination	4.31	4.52
Develop balance	4.14	4.17
Develop body sense	4.00	4.03
Develop body coordination	4.36	4.33

Use movement as a form of play	4.48	4.50
Use movement as a way to stimulate conversation and develop language	4.33	4.28
Use movement as a way to help children understand concepts of movement and space	4.31	4.22
Use movement as a way to help children develop better social relations	4.27	4.28
Use movement as a way to express and communicate feelings	4.06	3.92

Practitioners reported high levels of recognition about the importance of physical movement for the development of children and reported planning for it to a very large extent (almost always). For the specific questions, the highest levels of planning were reported for 'hand-eye co-ordination' and 'body coordination' and marginally less planning for developing 'balance' and 'body sense'. The

very high levels of reported planning for such *specific* movement activities casts some doubt perhaps on whether the practitioners fully understood what was involved.

For the questions about the role of movement in children's development, 'movement as a form of play' was widely endorsed as very important and almost always planned for. High levels of importance and planning were also reported for using movement to stimulate conversation, to help children understand concepts of movement and space, and to help them develop better social relations. Movement as a way to express and communicate feelings was given the lowest importance ratings and was planned for least; but this was just relative to the other areas and the ratings shifts towards 3/4 rather than 4/5.

3.3.4 Outcome 4

Recognition of the importance of working in partnership with parents around the developmental needs of 2-year old children, increased opportunities to communicate with parents, and increased satisfaction with the communication.

Working in partnership with parents

Section 7 explored practitioners' perception of the importance of working in partnership with parents. When asked how important the involvement of parents as partners in their child's education was, over 99% or practitioners responded either quite, or very, important.

Practitioners were also asked to what extent they considered if the parents and their setting worked in partnership to promote children's learning and development. Over 83% responded either often, or almost always.

Practitioners were asked to what extent they agreed or disagreed with 15 statements in relation to their setting. Their responses to each question are illustrated in the figures below.

Figure 44

Q 13.1: We share information with parents concerning the overall running of the nursery.

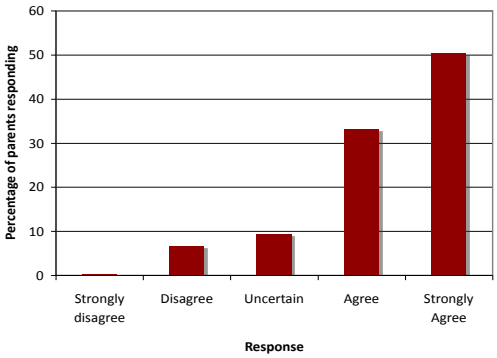


Figure 45

Q 13.2: We prefer parents to communicate with us by appointment at a specific time.

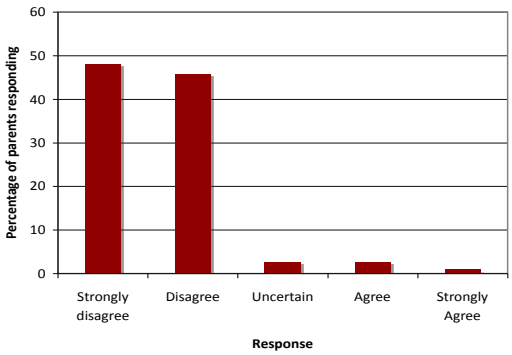


Figure 46

Q13.3: We create an atmosphere of open communication with parents.

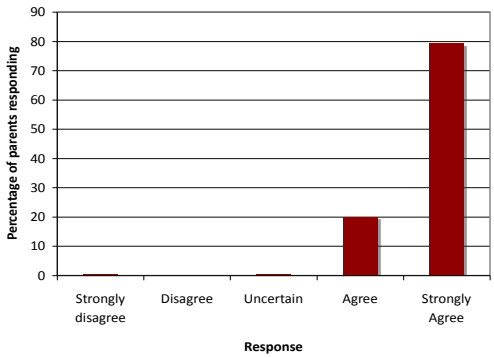


Figure 47

Parents can disturb the children if they are frequently in the setting.

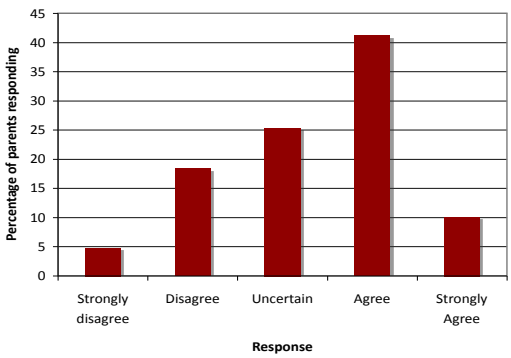


Figure 48

Q13.5: On a daily basis parents have the opportunity to chat with our staff. and what they can do to help this along.

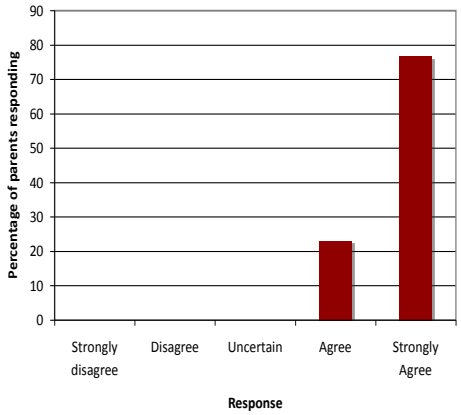


Figure 49

Q 13.6: We communicate with parents about their childrens' development in our setting

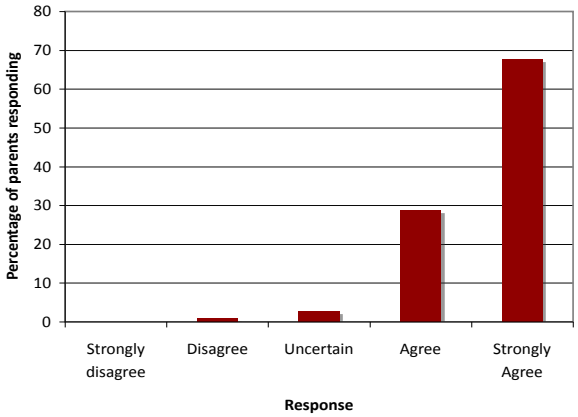


Figure 50

Q 13.7: Parents are too busy to support their children's learning. This is what we practitioners do best.

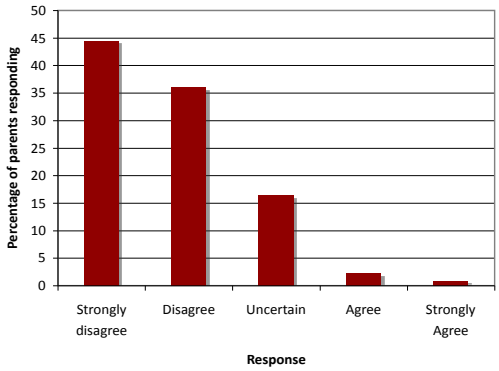


Figure 51

Q 13.8: Parents are given the opportunity to share their views, concerns and wishes.

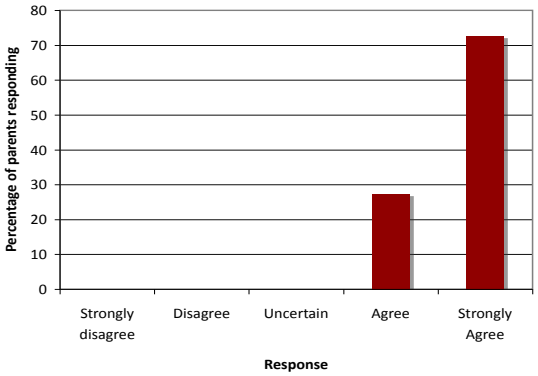


Figure 52

Q 13.9: We feel that the responsibility for the child's development lies solely with practitioners when children are with us.

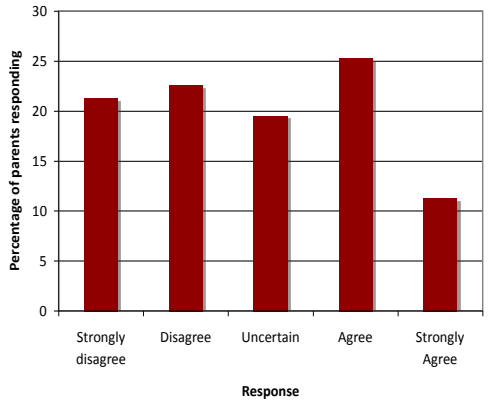


Figure 53

Q 13.11: Parents are encouraged to be involved with joint activities.

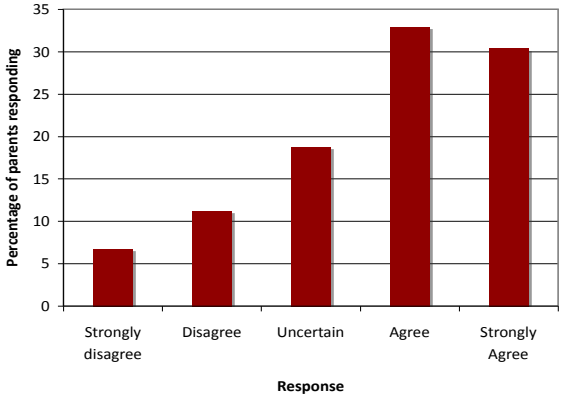


Figure 54

Q 13.12: We value parents as partners in their child's education and care.
child's development.

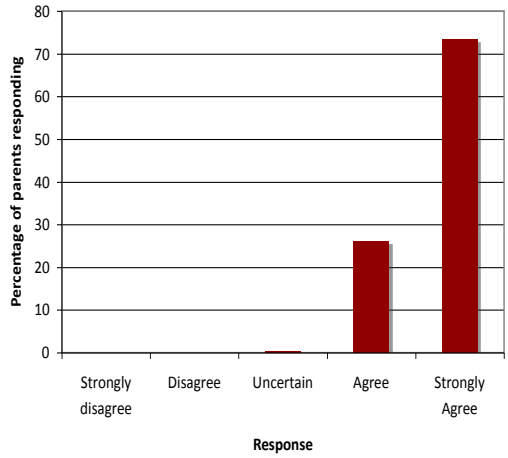


Figure 55

Q 13.13: We provide parents with materials and training to help them increase their

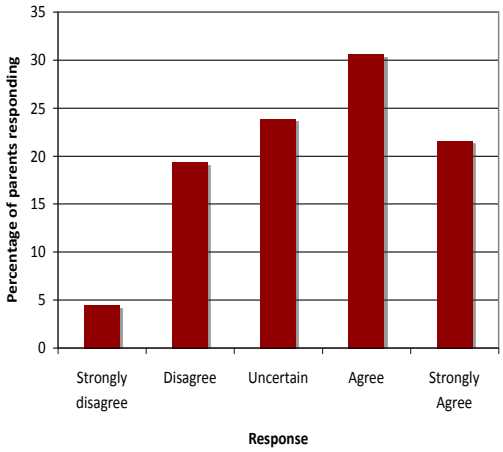


Figure 56

Q 13.14: Overall I am satisfied with the level and quality of communication I have with parents.

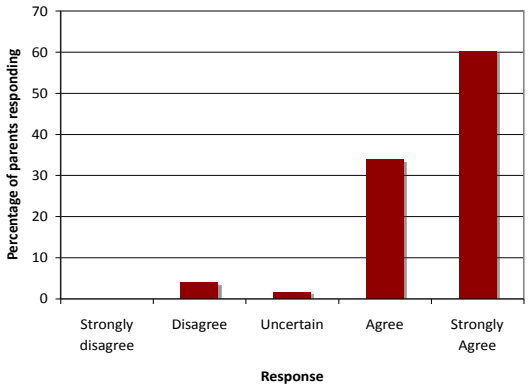
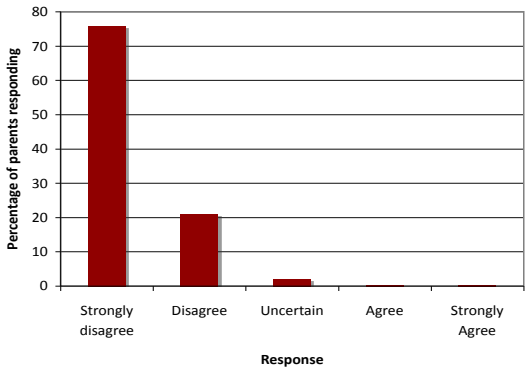


Figure 57

Q 13.15: Sharing care and educational information with parents is a waste of time.



The practitioners viewed their communication and partnership with parents very positively. 100% agreed/strongly agreed that they have an atmosphere of open communication with parents (Figure 46), that parents have the opportunity to chat with staff on a daily basis (Figure 48), that parents are given the opportunity to share their views, concerns and wishes (Figure 51), and that parents are valued as partners in their child's education and care (Figure 54). They disagreed/strongly disagreed that sharing information with parents is a waste of time (Figure 55).

Practitioners' views about the partnership with parents were more positive than the parents' perceptions on similarly worded questions, but only marginally so. In general, the views of practitioners and parents were well aligned.

There was also agreement between practitioners and parents on more problematical issues related to joint responsibilities and joint activities. For example, substantial minority of practitioners (35%) were either uncertain, disagreed or strongly disagreed that parents were encouraged to be involved in joint activities with the setting; 50% of parents held a similar view. 47% of practitioners were either uncertain, disagreed/strongly disagreed that they provided materials and training to help parents increase their child's development; 55% of parents also showed this pattern, indicating that perhaps settings had different practices on these matters.

4. Conclusions and Implications

4.1 Preamble

The main purpose of this baseline survey was to get a snapshot of the developmental stages of a large sample of 2-3 year old Northern Ireland children at a single point in time in the latter part of 2008.The sample was not representative of the Northern Ireland population of 2-3 year old children as it was confined to children who attended centre-based early years settings and did not include children who were looked after through more informal arrangements – relatives and childminders – or who did not spend time outside the home and were taken care of by parents. The social and economic background of the children was positively skewed as 42% of the parents had higher education degrees (Level 4 and above), compared to 19.65% of the adult Northern Ireland within the same age group. Nevertheless, the children in the sample came from a wide range of social and economic backgrounds, from urban and rural settings and were geographically distributed across Northern Ireland. In general, the children who were enrolled in Day Care Nurseries came from more affluent backgrounds than those in the Sure Start programmes, but there were substantial overlaps between the two sub-samples.

4.2 Children's Development across the Domains

Because of the recency of the Bayley III revisions, there were no published studies in the UK on general populations of children against which to benchmark the current sample of Northern Ireland children (e.g., Woolfson & King, 2008 is a study on a very highly socially disadvantaged group of 2 year olds in Scotland). UK and Ireland norms for calibration purposes were published in 2010 but they are not a full set of norms for different age groups (Bayley, 2010 UK and Ireland Supplement Manual). For now, comparisons can be made only against same-aged US children.

Making these direct comparisons, and acknowledging that the sample may be biased towards children from more affluent backgrounds, the Northern Ireland children in this sample were more developmentally advanced than the US norms in four developmental domains – cognitive, receptive language, expressive language, and fine motor development. They were less advanced than the US norms for gross motor development. In terms of the rank order of the children's performance across the different developmental domains, the Northern Ireland sample were most advanced in receptive communication and most delayed in gross motor development. Fine motor development was also well advanced – thus showing an unusual dissociation between fine motor and gross motor development. This dissociation in the normative development of fine motor and gross motor skills was also reported in the UK and Ireland supplement norms. Thus, gross motor development appears to be an area of developmental concern for UK children – at least at this age. The more general importance of motor development was highlighted in recent research from the Millennium Cohort

longitudinal study in the UK, where developmental delays in motor development at 9 months of age (fine motor and gross motor) were associated with poorer cognitive outcomes for children at age 5 (Schoon, Cheng & Jones, 2010).

With regard to the social, emotional, dispositional and behavioural domains rated by the practitioners, the Northern Ireland sample was less advanced compared to US same-aged children – with one exception. On the Greenspan Social-Emotional Scale – which assesses perceptions of general developmental milestones, the children were more advanced than the US norms. For the more specific behaviours which constitute the Adaptive Behaviour Scales, the children were rated as less advanced. Because of differences between the methods of data collection for the two samples in terms of who completed the ratings (parents in the US norms, practitioners in the NI sample), we are not completely confident about how appropriate using the US norms is in terms of evaluating the normative levels of the children's development. Nevertheless, the *rank order* of the practitioners' ratings can reveal the relative development of the children in the different domains, as perceived by the practitioners. For example, the adaptive skills that are designated as 'conceptual' – communication, functional pre-academics (emergent literacy) and self-direction – appear to be rated higher than social skills – leisure (play) and social interaction. Despite the findings from the Social-Emotional scale with regard to advanced developmental milestones, the children's average scores with regard to their capacity to engage in playful activities, joining in, showing social skills, helping others and so on, are relatively low.

Also, we must be careful not to rely solely on the children's *average* scores in each developmental domain. The distribution of the scores showed wide variation between same-aged children, showing that it is difficult to say exactly what is typical development for 2-3 year old children. Recognising this variation will be particularly important for those who design developmentally appropriate programmes and organise activities in early years settings.

In terms of the general factors that predict developmental outcomes, the baseline survey reproduced well rehearsed findings. For example, girls were more developmentally advanced than boys – with the exception of gross motor movement. Social and economic background had very predictable effects. Specifically, poorer developmental outcomes were associated with the lowest levels of social disadvantage, even at this early age (e.g., Feinstein et al., 2003). Rural children were more developmentally advanced in some areas than urban children, but these effects were probably indirect effects of social disadvantage/advantage.

4.3 Parents and Practitioners

A secondary purpose of the baseline survey was to find out about the perceptions of the children's parents and the practitioners in the early years settings about the developmental needs of 2-3 year olds, and their associated actions and interactions with the children. The survey was not intended to be fully comprehensive and concentrated on specific areas – namely, play, movement and learning, and adult-child interactions related to the children's social-emotional, physical and cognitive growth. In addition, recognising the importance of parental involvement with early years settings, questions were included in both the parents' and the practitioners' survey about their current experiences and satisfaction with the level of communications and working partnerships between parents and early years settings. Almost all the parents who responded were mothers (95%) and all except one of the practitioners were women.

Overall, the vast majority of parents and practitioners presented very positive and developmentally sensitive portraits of their interactions with the 2-3 year old children. It should be remembered that the data is 'self-reported' and there is probably a positive response bias in the pattern of the

findings. Consequently, the rank order of the ratings and frequencies reported may be more revealing than the absolute level.

Several findings stand out with regard to position in ranking. For example, for play activities, emergent literacy (story-telling and books) was reported most frequently for both parents and practitioners, and there was a tendency for more active activities (movement games and dance, rough and tumble play, playing with outdoor equipment) to be reported less frequently (Tables 15 and 20). Nevertheless, there was no evidence that play was 'in peril' for this sample of childern and parents. Also, parents expressed the highest levels of satisfaction about playing with their children, in terms of their parental self-efficacy (Table 16).

Also, some interesting patterns, and contradictions, emerged around the domain of emotional development and emotional expression – in terms of its rank ordering relative to other domains. Parents rated their ability to show affection to their children and recognise their children's emotional states as the lowest among the four parental-efficacy scales (Table 16). Although practitioners rated their own social and emotional interactions with the children very highly (kneeling to talk to the children, giving hugs and cuddles, using a warm tone, Table 22), and they rated the children's social-emotional development as well advanced (the Greenspan Social Emotional Scale in Bayleys), when asked about more specific behaviours related to emotional development, the picture did not look so positive. For example, practitioners did not give a high frequency rating to helping children express and communicate their feelings during play (Table 21), and they rated using movement to communicate feelings as least important and least planned for – relative to the other reasons for using movement (Table 23).

With regard to the role of movement in learning, both parents and practitioners thought that it was relevant to a wide range of learning as well as being important for keeping children fit and healthy. Nevertheless, as mentioned above, movement and physically active forms of play tended to be engaged in less frequently than other play activities. Questions to the practitioners about very specific developmental movement activities (hand-eye co-ordination, balance, body-sense, body co-ordination) were rated as very important and planned for very frequently but there was some doubt as to whether these questions had been fully understood. Importantly, from the Bayley test, the children's gross motor development scores were the least advanced relative to the other developmental domains. When making these links between parent/practitioner responses and children's developmental stages, it is important to remember that the parents' beliefs and interactions were likely to have been more influential on the children's development at this stage rather than the practitioners, as the children had just arrived into the early years setting when they were assessed.

Finally, there was strong alignment between the parents' and practitioners' views about communication and the working relationship between them. Both groups agreed that they had positive and open communications with the other group, although practitioners' views tended to be slightly more positive than the parents. More diverse views were expressed about whether the settings encouraged feelings of shared responsibilities, joint activities and extending the work of the early setting into the home. Some settings clearly did this and others did not. Again, parents and practitioners agreed on this point. There is clearly room for development work here for any new service design.

4.4 Implications

Outside national longitudinal samples, such as the Millennium Cohort, large scale surveys that include direct assessments of children's development, as well as ratings about their development from caregivers, are relatively unusual for children in this 2-3 year old age range.

Surveys of 3-4 year old preschool samples are more frequent (e.g., Melhuish et al., 2004, *Effective Pre-School Provision in Northern Ireland (EPPNI)).* Although not a representative NI sample and confined to 2-3 year old children in centre-based settings, this is a large sample describing 655 children drawn from a wide variety of social and economic backgrounds and geographically areas. Use of the Bayley III gives a comprehensive developmental assessment – not just for the traditional developmental domains of cognition, language and motor development, but also the more neglected domains of social-emotional development, and the children's ability to increasingly function independently in relation to managing themselves and their social interactions with other children and adults. For these reasons it provides a very distinctive picture of the development of 2-3 years old in Northern Ireland early years settings. Also, the survey of practitioners and parents gives an overall view of what their current perceptions and practices are with regard to 2-3 year olds, and the role of early years setting in children's learning and development.

There are particular points to note not only for practice, such as for training early years practitioners, for input from early years specialists, and for parent workshops, but also for centre managers, inspection and regulation systems and for early years policy makers more generally.

4.4.1 The Children

Variability for children of the same age: Frequent references are made in everyday professional exchanges about the 'typical' 2 year old. One of the most important findings in the survey was the degree of variability observed between same-age children. Although this confirms the everyday experience of parents and those who interact frequently with young children that 'every child is different', it is not always taken sufficiently into account when designing programmes for young children, or when arranging everyday activities in early year settings. For example, practical arrangements like moving children from the 'two-year old' room into the 'three year old' room based on age criterion alone might need to be reconsidered, as well as the general expectations that early year practitioners might hold of what is 'typical' for two year olds.

4.4.2 Relative strengths and weaknesses in the development of the children

The findings draw attention to the normative strengths and weaknesses of the children's development.

On average, the children's language development seemed to be well advanced but there was wide variation between same aged children. Also noted was a gap between the children's level of understanding spoken words compared to their expected ability to communicate using words and sentences, which was less well developed. This implies that more attention needs to be given to helping children develop their abilities to *use* words in a variety of contexts, to extend vocabulary and begin to use more complex sentence structures.

There was also a gap between the children's fine motor and gross motor development, with gross-motor development being relatively poorly developed. This pattern has been previously observed in UK samples of children. Nevertheless, it does point to the need to engage children in more whole bodied physical activities, whether indoors or outdoors. For example, recent reports from the four

Chief Medical Officers in the UK recommend that children under 5 (who are capable of walking) should engage in physical activities (mostly active play) for at least 180 minutes spread throughout the day (Department of Health, 2011).

While the children's general social-emotional development seemed well advanced, their more specific abilities to engage in playful interactions, joining in, co-operating and helping other children, was relatively low. Practitioners need to have flexible strategies for interacting with children in playful ways and not to have fixed ideas about the nature of play (see below).

On average, girls were generally more advanced than boys in most areas but there was considerable overlap between the distributions of scores for both genders; some boys were above average and some girls were below average. It is important that practitioners avoid stereotyped expectations about girls 'always being better' or boys 'always being behind'.

These patterns represented the overall profile for the group of children that were surveyed. Practitioners need to remember that individual children will also display their own unique profile of strengths and weaknesses. For example, a child may have well developed language abilities but with less well developed fine or gross motor skills; or a child may be well developed socially but need more help in specific areas of language development, for example, in expressive language.

Social and economic disadvantage: Children who came from less affluent backgrounds were developmentally disadvantaged across most domains. The effect was particularly obvious for the most disadvantaged sub-group (the lowest quartile). These children do need more intensive high-quality interventions/programmes designed specifically with their needs in mind – programmes that, by observing the children at the point of entry, can plan for the individual needs of a child as well as the overall needs of the group. There are existing evidence-based programmes to support such observations.

4.4.3 The Practitioners

Images of play: There was some evidence of contrasting images of what constituted 'good' play held by practitioners – from allowing children to play alone and follow their own interests to adult scaffolding and extending children's play. Both are likely to be appropriate, with practitioners making professional judgements about which should guide their actions. However, such images can be held implicitly and influence practitioners' actions in ways in which they are not fully aware. Training needs to begin to explore these taken-for-granted images of play and to expand the repertoire of practitioners' roles and behaviours in relation to play for this age group.

Practitioners' interactions and children's emotional and social development: Practitioners reported warm relationships and developmentally appropriate interactions with children. Nevertheless, children's social skills and capacity for playfulness were not well developed, and practitioners reported giving lower priority to helping children express and communicate emotions than they did to other areas of development. This domain of children's development may need to be further explored with practitioners, with input from early years specialists, and specific strategies identified.

Overall, the findings show that practitioners need to have a deep underpinning knowledge and high levels of professional competence when working with this age group. The need to know about child development from 0-3 years across a variety of domains, and how they can best interact with children to promote their development; and they need to have a deep (rather than superficial) understanding of the role of play in children's development and be able to use flexible strategies for interacting with children in playful ways (e.g., scaffolding play, acting as a play partner, helping

children move from playing alone to playing with other children, observing play, see for example, Dunkin & Hanna, 2001).

4.4.4 The Parents

Communication and sharing between practitioners and parents: Parents and practitioners were generally satisfied with the level of communication with one another, except in the specific area of shared responsibilities, joint activities and extending the work of the early settings into the home, where mixed views were expressed. Some deeper issues here may need to be explored about boundaries of responsibility and/or the value of a joint agenda to help children's development and learning.

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