

A longitudinal examination of the booksharing environment for young infants: what influences early booksharing activity and a child's communication development at 10 months of age?

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Abstract: This study addresses the factors that contribute to the booksharing environment for young infants. The parents of infants aged 4 and 10 months old participated in this study. Information on the booksharing environment at home and other contributory factors, such as: the infants temperamental characteristics at 4 months, an appreciation of the booksharing activity and the infant's communication development at 10 months, were obtained from questionnaires. It was found that the presence of siblings increased the frequency of booksharing activity for the 4 months old infants. The infants' temperamental characteristics at 4 months of age influenced the booksharing environment and continued to differentiate the booksharing environment when the infants were 10 months old.

Key words: booksharing, attention development, temperament

Storybook reading to a child is one of the common childrearing practices in many cultures. This practice is drawn from parental and educational beliefs in society and is widely supported by educational practitioners and researchers. According to the review by Sulzby and Teale (1991), storybook reading facilitates children's emergent literacy. They argue that storybook reading is a socially created activity in which both the adult and child cooperatively seek to negotiate meaning through verbal and nonverbal interactions. It also has a routine format that includes patterns of activity that encourage the youngster

to readily participate in the activity (Ninio & Bruner, 1978). There is also a view that early interactions via books are crucial in laying the foundation for literacy (Bryant & Bradley, 1985; Hannon & James, 1990).

A wealth of evidence suggests that the effects of different interactional patterns of bookreading with a child can differently facilitate a child's language, cognitive and literacy development (Chomsky, 1972; DeLoache & DeMendoza, 1987; Ninio & Bruner, 1978; Sulzby & Teale, 1987).

More recently, as a scheme for promoting early literacy the Bookstart project was

initiated in the UK. For the last 15 years, the Booksart scheme has been expanded internationally. This campaign in which nine-month-old infants are given a book intends to promote booksharing activity with their parents and carers at home. It has been evaluated from various aspects and has been shown to have long-term benefits for a young child and their parents in raising their awareness of bookreading and changing their behaviours at home (Wade & Moore, 1996, 1998). In Japan, much younger infants and their caregivers have been targeted in the Bookstart project. Four-month-old infants experience bookreading as a part of the Bookstart project. Parents are informed about the purpose of the Bookstart scheme and importance of booksharing in early years. The growing interest in the Bookstart scheme in Japan indicates that booksharing activity at early ages also has an impact on the babies and their families. Bookstart in Japan has been evaluated by the NPO (Non Profit-making Organization) in collaboration with Akita and Yokoyama (2002) as a pilot project. Currently several evaluations of locally implemented projects have been reported and these provide evidence to support the promotion of booksharing activity.

Nevertheless, most of these studies have evaluated changes to the child's environment, but little investigation has been carried out on the interactional process of booksharing. In fact, a child's behaviours during bookreading could differ depending on their age. As the partner in bookreading, adults also need to be able to "scaffold" interactions (Wood, 1989). In order to provide a child with an effective

booksharing experience, adults need to know what they can expect from the child. Although it has been reported that there is variability in booksharing styles (Ninio, 1980), such studies often focus on the parental interactional styles, rather than the child's behaviours. However, if we regard the booksharing activity as an interactional process, a child's behaviours during booksharing are crucial.

Recent research on infant perception and cognition has been extending our knowledge of child development. We now know that very young infants are much more competent than we thought in the past. For example, infants appear to have an interest in the human face from a very early age (Fantz & Nevis, 1967). And they are sensitive to the direction of the eyes (Farroni, Massaccesi, Menon, & Johnson, 2007; Farroni, Massaccesi, Pividori, & Johnson, 2004; Farroni, Menon, & Johnson, 2006). Infants appear to have a sophisticated object knowledge at much younger age than we used to believe. Infants are sensitive to the social contingency that emerges during interactions with another person (Tronick, Als, Adamson, Wise, & Brazelton, 1978). Although elaborate experimental paradigms have uncovered the competence of young children, how these competences are shown in everyday life, while interacting with other people and objects is less clear.

Given that infants are competent at very early ages, it is important to investigate infants who receive rich stimuli through interaction with their caregivers. This study examined how young infants behave in everyday social interactions with a focus on the

booksharing activity. The insight into the infants' behaviour during the booksharing activity and its short- and long- term effects on child development in turn leads to a better understanding of the booksharing activity for parents as well as social and educational provisions designed to promote child-rearing schemes like Bookstart.

This paper, as a part of the Bookstart project, reports the examinative of the book-sharing environment from the perspective of the infant being a major contributor to the booksharing environment. For example, an infant's temperamental characteristics are considered to play a large part in the formation of early mother-child relationships (McConnel & Bryson, 2005; Vaughan et al., 2003). Therefore this study focused on children's behaviors and dispositional characteristics that may play a role in forming the parent-child booksharing activity.

The context in which the present study was carried out is the bookstart session. Drawing on data collected as part of a bookstart study (Tsuji, 2007) which consisted of the observation of infants' booksharing behaviour and parental questionnaires, this paper addresses what, if any, contribution does early booksharing have on the later booksharing environment and communication development. The present paper reports on the longitudinal analyses of parental questionnaires with reference to their booksharing activities prior to the bookstart session and subsequent changes in their booksharing environment and child communication. The question addressed in this paper is: what kind of relationship, if any, can be found between the booksharing

environment and/or a child's temperament at 4 months and the subsequent communication and booksharing environment at home? It was hypothesized that early experiences of the bookstart session could change parental behaviour during later booksharing activities. When infants are young, dyadic interactions are driven by their attentional ability and temperamental characteristics (Marshall, Fox, & Henderson, 2000; Sigman & Beckwith, 1980); therefore, it is possible that the later booksharing activity and environment are likely to be related to an infant's characteristics, such as temperament.

Method

Design of the study

The design of this study consists of observations of the bookstart session that took place at a local health centre and parental questionnaires at 4 months of age, and of the follow up parental questionnaires at 10 months of age. This study examined the infant's booksharing environment at home and the infants temperament before receiving the bookstart session, and the relationships with later booksharing activity and communication development at 10 months.

Participants

For the initial observations of the Bookstart sessions, 261 infants (boys=131; girls=130, age: 120-149 days) and their mothers who visited a local health centre in a western city of Japan for their babies' 4-month health check-up, participated in this study. At their 10 month-developmental check-up, 228

mothers were asked to fill out questionnaires. The data from 15 questionnaires were not included in the analysis because either the dyad did not have a bookstart session at 4 months of age or the mothers could not complete the questionnaire due to disturbance caused by her infant's tantrum. Thus, a total of 213 mothers' data were analysed at 10 months. Within the 10 month sample, 57 dyads participated in the observational study when the infants were 4 months old.

Procedure

Before the bookstart session, parental agreements were obtained. Each infant-mother dyad was introduced to the Bookstart session, in which the infant sat on their mothers' lap facing an adult who read the picture book to the infant and then the observation began. The Bookstart session lasted for approximately 2 minutes. As the present paper focuses on the information obtained from parental questionnaires when the infants were 4- and 10-months of age, the procedure for the observation of infants' behaviours is described very briefly. During the observation of a bookstart session, infants' behaviours were coded into the following 7 categories, which were not mutually exclusive: gaze at the adult who read the picture book; extending a hand to the picture book; turning a page; rhythmic body movement; vocalisation; intensely looking at a part of a page for more than three seconds; exploratory look across the page. This was followed by parental questionnaires. A follow-up questionnaire was distributed at the 10 month health check-up. Parents were asked to fill out the questionnaire at the end of the

play session.

Parental questionnaire on the bookstart environment and infant's temperament

The parental questionnaire included questions on the infants' temperamental nature in terms of activity level, emotionality, adaptability and reactivity. All of these questions related to how often the mother observed the described behaviours in their infants in the preceding few days. Additionally, the frequency of book sharing experiences at home (none, sometimes, a few times a week, and everyday) and the mothers' prior experience and knowledge of Bookstart were asked (see appendix a).

Parental questionnaires for booksharing and communicative interactions with infants at 10 months

Parents of 10 month-old infants were asked about communicative interactions with their child at home. The questions included booksharing environment after the bookstart session, including the mother's and child's interest in books, their appreciation of the booksharing activity at home and the child's communicative behaviours (see appendix b).

Results

4-month-old infants' booksharing environment at home and their temperament

From the parental questionnaires, information on the 4 month old infants' booksharing environment was obtained. Regarding the question of parental awareness of bookstart, 56% of mothers did not know about bookstart and experienced a bookstart session for the

first time. 41% of infants were reported to be first born. Table 1 presents the number of parents who reported that they were aware of the bookstart scheme as a function of their infant's birth-order. There was a relationship between infant's birth order and parental awareness of the bookstart scheme: $\chi^2=44.6$, $p<.0001$.

Table 1 Number of parents who were/were not aware of Bookstart scheme as a function of child birth-order

Birth-order group	Awareness of BS		Total
	No	Yes	
Only child	86	21	107
Child with siblings	59	94	153
Total	145	115	260*

*no recorded of birth order for one child

In order to reduce data sets derived from the questions relating to booksharing activity and parental attitude to reading, a principal component analysis was carried out (Table 2). One component from these questions was obtained and the standardised principal component score is referred to as the "booksharing environment" score.

The infants' temperamental characteristics obtained through the parental questionnaires

Table 2 Factor loading for the component booksharing environment

Booksharing environment component	
Reading book to child	0.74
Like reading	0.74
Factor contribution	1.09
Accumulated proportion (%)	54.46

extracting method: PCA

were reorganised by a Principal Component Analysis (PCA). The summary of the PCA is presented in Table 3. The first component was related to "negative emotionality and soothability", the second component was related to "positive emotionality and activity level" and the third component was related to "high reactivity". A highly reactive infant is less adaptable and more nervous of novel stimuli and/or new environments.

Table 3 Factor loading for the components of infants' temperament

	Components		
	1	2	3
Soothability	0.71	-0.10	-0.14
Negative emotionality (1)	0.70	0.17	-0.11
Negative emotionality (2)	0.68	0.00	-0.06
Positive emotionality (1)	-0.17	0.64	-0.10
Activity level	0.21	0.63	-0.25
Adaptability	0.37	-0.18	0.71
Reaction to novelty	-0.01	0.56	0.62
Factor contribution	1.67	1.19	1.00
Accumulated proportion (%)	23.84	40.88	55.23

extracting method: PCA

(1) when infants are getting changed; (2) when infants are fed

Whether or not the booksharing environment for 4 month-old-infants differed as a function of parental awareness of the bookstart scheme was examined with an independent sample t-test. There was a significant difference between the groups depending on the mothers' awareness of the bookstart scheme: $t=5.3$, $p<.001$. Infants of mothers who knew about the bookstart scheme had received more booksharing activity and their mothers showed more interest in reading books than those who did not know about the scheme.

Table 4 Summary of the components for post-bookstart environment

	Post-bookstart environment components	
	"appreciation of booksharing activity"	"library visit"
Parental interest in picture books	0.83	-0.15
Book sharing with child	0.80	-0.26
Purchase picture books	0.73	-0.40
Register library card for child	0.36	0.78
Visit library	0.51	0.68
Factor contribution	2.26	1.33
Accumulated proportion (%)	45.21	71.77

extracting method: PCA

When the infants' temperamental characteristics were compared between the groups of mother who did and did not know about bookstart, no significant differences were found in the temperamental characteristics of "positive emotionality and activity level" and "high reactivity". However, the "negative emotionality and soothability" score differed between the groups: $t=2.18$, $p<.05$. The mothers who did not know about the bookstart scheme reported that their infants showed higher frequency of such characteristics at 4 months of age.

Post- Bookstart environment, appreciation of booksharing activity, and communication development at 10 months

All parents who experienced the bookstart session at 4 months of infant's age were considered in the analysis. Principal component analyses were carried out to reduce the data sets derived from the questions on the post-bookstart booksharing environment, booksharing behaviours at home, and communication development. The results for each of the PCA are summarised in Table 4. One component from these questions was obtained and

Table 5 Appreciation of booksharing activity at 10 months

Booksharing activity component	
Child enjoy booksharing	0.85
Parent enjoy booksharing	0.81
Frequency of booksharing	0.74
Child ask for booksharing	0.67
Point at picture in a book	0.65
Factor contribution	2.79
Accumulated proportion (%)	55.72

extracting method PCA

Table 6 Child communication development at 10 months

Development component	
Intentional gaze at adults	0.77
Showing & Giving	0.74
Communicative gesture	0.74
Pointing	0.72
Gaze following	0.71
Understand simple phrase	0.68
Imitate others	0.68
Social referencing	0.56
Factor contribution	3.94
Accumulated proportion (%)	49.27

extracting method: PCA

the standardised principal component score is referred to as the "booksharing environment" score. Table 4 indicates that there are two com-

ponents in the post-bookstart environment; the primary component relates to “parents and child’s interest in books”, and the secondary component relates to “library visit”. Taken together 72% of variances were explained by these components. The “appreciation of booksharing activity” component explains 56% of variances (Table 5). The child communication development component explained 49% of the variances.

In order to understand the relationship between the components, Pearson product-moment correlations were examined, and their results are summarised in Table 7.

Table 7 indicates that there are positive and moderate correlations between “interest in books”, “appreciation of booksharing” and “communication development”. This result suggest that those parents who reported to have increased “interest in booksharing” in the post-bookstart environment appear to have a higher score in “appreciation of booksharing” and “communication development”. Regression analyses were carried out to investigate intercorrelations between the variables. When the “communication development” score was considered as a dependent variable, the “appreciation of booksharing” score explained 25%

Table 8 The standardised regression coefficients of the predictor variables explaining “appreciation of booksharing”

Predictor variable	Beta	t
Interest in books	0.59	12.23****
Communication development	0.28	5.72****
Library visit	-0.16	-3.43****

: $p < .001$, *: $p < .0001$

of the variance. It was found that when the model was set with the “appreciation of booksharing” score as a dependent variable, the rest of three variables explained 57% of variance: $F(3, 209) = 93.3$, $p < .0001$. The significant variables are indicated in Table 8.

Longitudinal relationship between infants’ booksharing at 4 months and booksharing activity and communication development at 10 months

In order to examine longitudinal relationships between an infant’s booksharing environment and temperament at 4 months and booksharing activity and communication development at 10 months, Pearson product moment correlations were carried out on 57 longitudinal samples. The results were summarised in Table 8.

The “booksharing environment” score at 4

Table 7 Correlation matrix between the components scores at 10 months (N=213)

	Interest in books	Library score	Appreciation of booksharing
Library visit	.000		
Appreciation of booksharing	.686**	-.186*	
Communication development	.346**	-.110	.499**

Two-tailed, *: $p < .05$, **: $p < .01$

Table 9 Correlations between 4-month booksharing environment and temperament and 10 month booksharing activity and communication development (N=57)

10 month measurement	4 month measurement			
	booksharing environment	Temperamental characteristics		
		negative emotionality and soothability	positive emotionality and activity level	high reactivity
Interest in books	0.104	-0.364**	0.119	0.036
Library visit	0.122	-0.257 ^a	-0.021	0.077
Appreciation of booksharing	0.019	0.057	-0.056	0.230
Communication development	0.118	-0.105	0.156	0.142

Note two-tailed; **: $p < .01$, a: $p = .054$

months, prior to the bookstart session did not significantly correlate with the scores at 10 months of “increased interest in books”, “library visit”, “appreciation of booksharing”; and “communication development”. However, an infant’s temperamental characteristics at 4 months, identified by the scores for “negative emotionality” indicated a negative relationship with “increased interest in books”: $r = -.364$, $p < .01$. Similarly, “negative emotionality” appeared to have a negative relationship with “library visit”: $r = -.257$, $p = .054$. No other temperamental characteristics correlated with the scores at 10 months. When correlation analyses were carried out for all the 10 month measurements with a longitudinal sample (N=57), similar significant trends were found although the correlation coefficients were smaller than the results reported above. Both “increased interest in books” and “booksharing” but not “Library visit” scores significantly correlate with “communication development”: $r = .269$, $p < .05$; $r = .265$, $p < .05$, respectively.

Discussion

This study examined the longitudinal relationships between the booksharing environment for 4 month- and 10 month-infants and also considered the infants’ temperament as an additional influential factor. With respect to parental awareness of the bookstart scheme, it appeared that more parents of infants who had siblings, than those who did not knew or had experience of the bookstart session. Did parental awareness of the bookstart scheme make a difference in providing their infant with booksharing activities at the age of 4 months? The results of the difference between booksharing environment scores between the bookstart awareness groups suggest that those mothers who already knew about the bookstart scheme reported to like reading more and to provide their infants with more frequent bookstart activities. However, the bookstart scheme may not be the only factor for such a difference. It may be that existence of siblings is one of the

contributing factors to their booksharing environment. In fact, during the observation session, many parents who had children older than the 4 month-infant mentioned that the booksharing situation happened naturally because the elder sibling was engaged in bookreading activity at home. Another consideration for the booksharing environment is infant's temperament. Significantly higher scores for the infant temperament "negative emotionality and soothability" were found in the mothers who did not know about the bookstart scheme than those mothers who did. However, as many more mothers of first-born infants were in the former group, it is possible that these mothers tended to notice negative aspect of infants behaviours in everyday life.

As to the 10 month infants' booksharing environment, parents were asked to record their behaviours and attitudes to book-related activity. Both the "interest in books" and "appreciation of booksharing" scores correlated with "communication development". However, a regression analyses indicated that a dyad's appreciation of booksharing may be explained by the "interest in books" and "communication development". This finding is very interesting, in that many of the studies reviewed earlier (Karrass & Braungart-Rieker, 2005; Sulzby & Teale, 1991) have assumed that a child's language measures were one of the outcomes of the parental efforts of booksharing. The present results suggest that "communication development" could be one of the factors that explain the "booksharing environment" at 10 months. This direction of influence is possible, because infants at 10 months of age

start to make a large leap in their ability to communicate with others. Communicative gestures start to appear in everyday interaction with their caregivers (Bruner, 1983) and joint attentional ability becomes very explicit (Tomasello, 1995). This kind of communicative behaviours can change the ways in which parents perceive their child and subsequently their interactions with the child. Thus, enjoyment of booksharing activity represented by "appreciation of booksharing" score could be explained by child's "communication development".

Another possible factor for explaining the booksharing environment is infants' temperamental characteristics. As the longitudinal data suggests, an infant's negative aspect of temperament at 4 months correlated negatively with the "Interest in books" and "library visit" scores. When a mother perceived that their 4 month-old infants presented more negative behaviour, then they were less likely to have an interest in books or visits to a library. It may be that those mothers whose infants are easily upset and difficult to sooth may find it hard to form booksharing activities at home and that will in turn inhibit their attention to booksharing and related activities. Marshall (2000) argued that a very young infant's emotional reactivity in particular contexts is "the primary organizer of behaviour" (p. 241) and that when a self-regulatory system is not fully-developed, they need to seek external support such as a caregiver's control of contexts. Therefore, mothers of infants with higher scores of "negative emotionality and soothability" may need to provide more support than those whose infants who showed

less negative emotionality. Those mothers may need more time to get their infants involved in booksharing activity.

The present study was largely drawn from parental reports to obtain information about the booksharing environment at 4 and 10 months of infants' age. In particular, a child's communication development was also inferred from parental reports by asking about child behaviours that reflect communication development milestones at the age of 10 months. Observing individual children to assess communication development might have strengthened the findings relating to the longitudinal relationships between environmental variables and child development. Nevertheless, this study indicated that an infant's temperament could be one of the contributors to early booksharing activity at home.

References

- 秋田喜代美・横山真貴子・ブックスタート支援センター (2002) ブックスタートプロジェクトにおける絵本と出会いに関する親の意識. 日本保育学会発表論文抄録 p 164-165
- Bruner, J. S. (1983). *Child's talk: learning to use language*. London: Oxford University Press.
- Bryant, P., & Bradley, L. (1985). *Children's reading problem*. Oxford: Blackwell.
- Chomsky, N. (1972). Stages in language development and reading exposure. *Harvard Educational Review*, 42, 1-33.
- DeLoache, J. S., & DeMendoza, O. A. P. (1987). Joint picture book interactions of mothers and 1-year-old children. *British Journal of Developmental Psychology*, 5, 111-123.
- Fantz, R. L., & Nevis, S. (1967). Pattern preferences and perceptual-cognitive development in early years. *Merrill-Palmer Quarterly*, 13, 77-108.
- Farroni, T., Massaccesi, S., Menon, E., & Johnson, M. H. (2007). Direct gaze modulates face recognition in young infants. *Cognition*, 102, 396-404.
- Farroni, T., Massaccesi, S., Pividori, D., & Johnson, M. H. (2004). Gaze Following in Newborns. *Infancy*, 5, 39-60.
- Farroni, T., Menon, E., & Johnson, M. H. (2006). Factors influencing newborns' preference for faces with eye contact. *Journal of Experimental Child Psychology*, 95, 298-308.
- Hannon, P., & James, S. (1990). Parents' and teachers' perspective on pre-school literacy development. *British Educational Research Journal*, 16, 259-272.
- Karrass, J., & Braungart-Rieker, J. M. (2005). Effects of shared parent-infant book reading on early language acquisition. *Journal of Applied Developmental Psychology*, 26, 133-148.
- Marshall, P. J., Fox, N. A., & Henderson, H. A. (2000). Temperament as an organizer of development. *Infancy*, 1, 239-244.
- McConnel, B. A., & Bryson, S. E. (2005). Visual attention and temperament: Development data from the first 6 months of life. *Infant Behavior and Development*, 28, 537-544.
- Ninio, A. (1980). Picture-book reading in mother-infant dyads belonging to two subgroups in Israel. *Child Development*, 51, 587-590.
- Ninio, A., & Bruner, J. (1978). The achievement and antecedents of labelling. *Journal of Child Language*, 5, 1-15.
- Sigman, M., & Beckwith, L. (1980). Infant visual attentiveness in relation to caregiver-infant interaction and developmental outcome. *Infant Behavior and Development*, 3, 141-154.
- Sulzby, E., & Teale, W. H. (1987). *Young children's storybook reading: Longitudinal study of parent-child interaction and children's independent functioning*. Ann Arbor: University of Michigan.
- Sulzby, E., & Teale, W. H. (1991). Emergent literacy. In R. Barr, M. L. Kamil, P. B. Monsenthal & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 727-757). Mahwah, NJ: Lawrence Erlbaum Associates.
- Tomasello, M. (1995). Joint attention as social cognition. In K. M. Moore & P. J. Dunham (Eds.),

Joint Attention (pp. 103-130). Hillsdale, NJ: Lawrence Erlbaum Associates.

Tsuji, H. (2007). *An exploratory analysis of 4-month-old infants' behaviours in a book-sharing context: individual differences in attentional gaze and actions while sharing a picture book*. Paper presented at the British Psychological Society Developmental Psychology section conference, University of Plymouth.

Vaughan, A., Mundy, P., Block, J., Burnette, C., Delgado, C., Gomez, Y., et al. (2003). Child, Caregiver, and Temperament Contributions to Infant Joint Attention. *Infancy, 4*, 603-616.

Wade, B., & Moore, M. (1996). Home activities: The advent of literacy. *European Journal of Early Childhood Educational Research Journal, 4*, 63-76.

Wade, B., & Moore, M. (1998). An Early Start with Books: literacy and mathematical evidence from a longitudinal study. *Educational Review, 50*, 135-145.

Wood, D. J. (1989). Social interaction as tutoring. In M. H. Bornstein & J. Bruner (Eds.), *Interaction in Human Development*. Hillsdale, NJ: Erlbaum.

Appendix a: Parental questionnaire at 4 months

■ Booksharing environment

- 1) Have you experienced a Bookstart session before? (yes, no)
- 2) Do you like reading books? (very much, a little, not so much, not at all)
- 3) How often do you share books with your child (children)? (Everyday, a few times a week, sometimes, never)

■ Infants' temperamental characteristics

How often have you seen these behaviours in your baby recently?

(almost never, seldom, sometimes, often)

- 4) When you dress or undress your baby, do they move their body actively?
- 5) When you dress or undress your baby, do they become upset?
- 6) When you dress or undress your baby, are they very cheerful?
- 7) When you feed your baby, do they become upset?

8) Once your baby becomes upset, is it difficult to sooth them?

9) When your baby sees novel people or things (on TV or in environment), do they easily react to it?

10) When your baby is in unfamiliar place or environment, do they become easily upset (angry or cry)?

Appendix b: Parental questionnaires at 10 months

■ Post-bookstart booksharing environment

Please choose option that best describes you and your child's booksharing behaviour (disagree, partially disagree, partially agree, agree) After the bookstart session, I as a parent:

- 1) became more interested in children's books and take my child to a library
- 2) purchase children's books
- 3) made a library card
- 4) share books with my child

■ Communication development

My child:

(disagree, partially disagree, partially agree, agree)

- 5) is very sensitive to adult facial expressions and behaviours
- 6) shows or gives out things to adults
- 7) point at objects
- 8) shift his/her gaze to indicate something to an adult
- 9) use gestures to communicate
- 10) imitates what he/she sees and other people
- 11) follows the direction of others' attention or pointing
- 12) understands simple conversational phrases (e.g. come here, give me X)

■ Booksharing activity at home

In everyday booksharing interaction with your child,

(disagree, partially disagree, partially agree, agree)

- 13) my child points at a picture in a book
- 14) My child looks very happy while reading a book
- 15) I enjoy booksharing with my child
- 16) My child initiates booksharing activity
- 17) How often do you have booksharing activity? (none, once before, a few times a week, everyday)