





INTERVENTION RESEARCH ON CHILDREN'S FREE PLAY: PARENTS' PERSPECTIVES

FINAL REPORT SUBMITTED TO PLAYRIGHT CHILDREN'S PLAY ASSOCIATION



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Executive Summary

This study was undertaken in Hong Kong, in which the influence of the COVID-19 pandemic on people from all walks of life was evident. Various preventive measures were enforced, including the closure of many outdoor playgrounds and suspension of face-to-face contact in schools. These preventive measures impacted children because of the restrictions on their use of public facilities for leisure activities.

Playright has always promoted free play in Hong Kong and had considerable concerns about the impact of the pandemic on children's play. In this regard, Playright developed a free play protocol that was implemented either in self-organized programmes or in partnership with some kindergartens. Against this backdrop, this study examined the evidence-based outcomes of the protocol.

Research Objectives

The study aimed to examine parents' perceptions of free play, parents' engagement with their child in free play, and the possible influences of free play on parents' mental health and parent-child relationships. Specifically, this study aimed to address research areas, including 1) parents' perceptions of free play; 2) parents' engagement in free play with their children; 3) barriers and difficulties faced by parents in engaging in free play with their children; 4) the outcomes of free play, specifically on parent-child relationships and parents' mental health.

Methodology

Part A of the study investigated the effectiveness of the PLAYBAG intervention protocol¹ in three kindergartens. Target participants were parents who participated in the PLAYBAG programme in these three kindergartens. A mixed-methods approach was adopted to collect quantitative pre- and post-intervention data by questionnaires capturing parents' perceptions of free play, their engagement with their children in free play, their mental health and their relationship with their children. Parents participated in focus group interviews to inform understanding of their engagement in free play with their children. Thematic analysis was employed to analyze the data from the focus group interviews.

Part B comprised a cross-sectional and quantitative investigation of parents' perceptions of free play, their participation in free play with their children and their relationships with their children. Target respondents were parents involved in the 'Playright Home Play Box' and 'Medical Play Experiential Box' activities organized by Playright between April 2020 and May 2021.

Findings

Part A confirmed the evidence-based effectiveness of the PLAYBAG intervention protocol

¹ Contents of PLAYBAG intervention protocol include: 1) Parents session which introduce project background, values of free play and how to make use of the provided resources (Play Bag and Play Diary) to engage children in free play; 2) Offering each child a Play Bag which contains unstructured play materials for parents and children to enjoy free play at home and school; 3) Providing a Play Diary for parents to record their reflection and observation when they engage with their children in free play; 4) Teachers trainings which educate teachers' knowledge and skills to engage their students in free play in schools and to provide necessary support to parents in this protocol.

in terms of enhancing parents' perceptions of free play, fostering positive parent-child relationships, and promoting parents' mental health. In addition, more than 80% of parents agreed that their child spent more time on PLAYBAG and other free play activities at home and that they had increased confidence engaging in free play activities with their child.

Regarding the intersection of parents' perceptions of play and socio-demographic background, Part B found that mothers were more inclined to endorse play freedom than fathers. Fathers embraced play safety more than mothers. Compared to parents with a tertiary or university education, parents with senior high school or below education were more inclined to endorse parental rules, play safety, gender stereotyping, and the importance of structured play and were less inclined to support imaginative play. In terms of play freedom, no significant difference was evident between parents with different levels of education. Parents in full-time employment were less inclined to support parental rules in play. Compared with parents of primary school-aged children, parents of children in kindergarten were less focused on parental rules when engaging in free play with their children. Regarding living space, parents living in confined accommodation were much concerned about safety problems when engaging in free play with their children.

This study also examined the intersection of parents' perceptions of play and parent-child relationships. Closer parent-child interaction and more positive parent-child relationships as a whole were evident among parents who endorsed play freedom and imaginative play. More conflict in parent-child relationships was observed when parents emphasized play safety and gender stereotyping in children's play. Investigation of the relationship between parental perceptions of play and the average time spent in free play revealed that parents who endorsed play freedom, imaginative play and children's choices allowed their children to spend more time on free play.

This study found that children spent more time in free play with their mother than their father. It identified parents' long working hours, children's rest schedules, and limited indoor space as the three most important barriers impacting parents' engagement in free play with their children. Parents considered female children's rest schedules the most influential factor affecting free play. Parents of primary school-age children considered the amount of homework as the most influential factor in free play. Parents who emphasized play safety were more likely to consider limited indoor space and difficulty balancing responsibilities as factors influencing their engagement in free play with their children. Moreover, parents who embraced play safety were more likely as a the more inclined to impose rules and regulations on their children in free play. This posed a dilemma for parents in balancing the roles of discipline enforcer and playmate.

The focus group interviews provided a fruitful insight into understanding parents' participation in free play with their children. Four essential elements were identified that facilitated meaningful interaction between parents and children in free play: 1) an egalitarian and non-judgmental attitude, 2) the quality of encounters with children in free play, 3) discoveries about their children, and 4) sustaining new meanings of their children's identity.

Recommendations

The results of this study generated the following recommendations:

- Enhancement of the PLAYBAG intervention protocol to address the specific needs of parents from different socio-economic backgrounds. For instance, parents' sessions for fathers, parents with full time employment, parents with children from different age groups etc. Contents of parents' sessions could provide more solutions to tackle the dilemmas faced by parents when engaging in free play with their children. More scenarios regarding possible ways to use the unstructured play materials in free play could be added in the parents' sessions.
- 2. Parental education on free play should be widely implemented in kindergartens and schools through collaboration among different stakeholders in the community, echoing a recent proposal "Curriculum Framework on Parent Education (Kindergarten)" published by the Education Bureau. Parental education on children's free play might include, principles and benefits of free play, effective ways to engage children in free play, creating quality free play time in families, co-parenting perspective of engaging fathers and mothers in free play.
- 3. Promotion of free play to the general public, in particular to generate understanding of the importance of free play, positive outcomes regarding enhancement of mental health and parent-child relationships, should be emphasized in community education programmes. The pandemic seriously affected parents' and children's mental health and well-being, and free play in the home and school environment helped relieve stress and anxiety and enhance family bonding.
- 4. The barriers to children's engagement in free play should be removed. Home-school collaboration needs to be strengthened to enhance parents' and children's creativity, participation, and collaboration in free play activities. Teachers' training regarding free play implementation in

school settings are recommended. Policies to streamline the amount of homework given to children and the development of a child-friendly free play school environment are advocated.

- 5. Creating an innovative child-friendly free play environment should be promoted through collaboration between different stakeholders in the community. Apart from improving the designated playgrounds provided by Housing Authority and Leisure and Cultural Services Department, different community stakeholders could work together to create various doorstep, indoor or outdoor play space for children and their parents to have free play in safe environment.
- 6. Last but not least, consideration should be given to empowering children's voices to co-create a free play environment. Different models or tools for children's participation should be adopted to fit various needs of children. Moreover, trainings are also required for the adults to listen, collect and respect children's voices in regard to those child-related issues.

Introduction

Children's free play often refers to the play activities in which children should be intrinsically motivated, based on their free will and choices, with no specific structure or rules governing their activities (Barnett, 2013). Various studies have documented the positive impact of free play on children's development and well-being (Gray, 2013; Gerve & Thomsen, 2016; Greve et al., 2014). However, research on free play in Hong Kong is limited (Lee et al., 2020). This study aimed to explore the outcomes of a free play protocol in Hong Kong, particularly regarding parents' mental health and parent-child relationships. This report comprises a literature review, the methodology used in this study, the study findings, and associated recommendations.

Literature Review

Children's Play and Child Development

Several theories attempt to explain the relationship between children's play and their development, including creativity skills and abilities, coping (problem-solving and social behavior), cognitive and emotional learning (Greve & Thomsen, 2016; Whitebread et al., 2017). Evolutionary developmental psychology claims that the sequences and processes of human development, indeed the mere fact of ontogeny itself, have to be viewed as evolutionary products (Gray, 2013; Pellegrini, 2009). Furthermore, learning via play, is the only form of learning that is consistent with human evolutionary history (Gray, 2013). So, from a

developmental psychology perspective, the lack of free play may damage children's mental growth, emotional development, and overall sense of well-being.

Vygotsky, known for his work on children's psychological development, inspired much subsequent research on developmental psychology (Vygotsky, 1966; 1967, 2004). Play is treated as a context for socially assisted learning, which is very important for the development of abstract thinking. During spontaneous and child-initiated play, children exercise control over their own activities, set themselves appropriate challenges, and so create their 'zone of proximal development' within which learning is most powerfully enhanced. Vygotsky views young children's play as the "leading activity" for their emotional, volitional, and cognitive development (Vygotsky, 1966; 1967). Subsequent research based on Vygotsky's work has developed his initial theory. Karpov (2005) reviewed the work of neo-Vygotskians supporting the notion that, in play, children are required to regulate their own behavior, making it a significant factor in the development of self-regulation. Another neo-Vygotskian scholar, Hedegaard (2016), re-interpreted Vygotsky's work to include emotions as an important part of children's play. In short, in parallel with developmental psychology and evolutionary psychology, play is regarded as an essential factor in children's development.

Free Play and Child Development

Play is generally acknowledged as a key ingredient of child development, and free play also has a role in child development (e.g., imagination, emotions, problem solving, social behavior etc.), and its effectiveness in child development is evident. Free play that allows children to exercise their free will to choose play objects, ways to play and play partners is often understood as the opposite of receiving parental guidance. Free play is regarded as having the core elements of child-organized, self-initiated and spontaneous play activities (Greve & Thomsen, 2016). From the perspective of evolutionary theory, some scholars suggest that free play or freedom in play are extremely significant for promoting children's learning. In contrast, children suffer irrevocable damage to their mental and emotional development, and overall sense of well-being when denied free play opportunities (Gray, 2013; Greve & Thomsen, 2016; Greve et al., 2014). Gerve and Thomsen (2016) asked 238 adults to recollect their childhood free play experiences and concluded that free play in childhood was connected to the growth of developmental resources, in particular individual adaptability in adulthood. Lehrer et al. (2014) found that allowing children the freedom to make choices in unstructured play activities outof-school may benefit their self-regulation, decision making abilities in their academic tasks and consequently lead to better school achievement

However, some studies are skeptical of the role of free play in child development. Van Oers (2011) refers to Karpov's claim that "free-play" was illusory as the children's play was actually self-regulated. Affording children free choice might provide advantages for some children, but may pose disadvantages to others (Wood, 2014).

Educators who promote children's free play are extremely important. Educators who are uncertain about the efficacy of play for the development of children's learning might present barriers to facilitating free play (Wood, 2014). As such, teachers' perceptions and implementation of free play influence the benefits of free play on children's development and learning. Teachers need additional training on improving the quality of free play time in school (Aras, 2016).

Children's Free Play and Mental Health

It is argued that free play has a positive impact on mental health. A US study found a parallel between the decline in children's opportunities for free play over the past half-century and an increase in children's mental health problems, including anxiety, depression, suicide, helplessness, and narcissism (Gray, 2011). Research indicates that free play and mental health are associated with the development of children's secure emotional attachments that are fundamental in promoting children's ability to cope with anxiety and stress (Dankiw et al., 2020; Whitebread, 2017).

Children's Free Play and Parent-Child Relationships

Children tend to engage with parents more positively during free play than in structured tasks. Parents participating in free play with their children engage in mutually positive and supportive interactions with them. Parents exhibited a higher degree of cognitive scaffolding, less negative parenting and more interactive language during free play than structured tasks (Kwon et al., 2013). Positive parental behaviors (warmth and responsiveness to children) in free play activities have been found to be positively correlated with the development of children's positive behaviors. Additionally, negative parental behaviors were more strongly related to children's problematic behaviors (Davenport et al., 2008).

Influence of the COVID-19 Pandemic on Children's Play

Researchers from different countries have identified both positive and negative influences on children's mental health, parent-child relationships and children's play as a result of the COVID-19 pandemic. Some research claims that the pandemic reduced children's play. Moore et al. (2020) found that following lockdown during the initial COVID-19 outbreak children and youth engaged in reduced physical activities and outdoors play, but increased recreational screen-based activities and slept more. Parental support and co-participation in physical activity and play were identified as factors promoting children's healthy lifestyle during the pandemic. The pandemic also led to a change in patterns of free and unstructured play. During the early COVID-19 pandemic period, the most frequently reported physical activities were free play or unstructured physical activities. One explanation for this was curtailed access to organized sport due to school closures, and free play and unstructured play provided substitutes for other physical activities previously undertaken by children (Dunton et al., 2020).

In contrast, some research found that children's play improved mental health and parental relationships during the pandemic. Gray (2020) argued that many children were motivated to engage in more self-initiative play during the pandemic. Additionally, increased time for play and more opportunities to contribute to family life constructively enhanced family togetherness and subsequently improved the mental well-being of many children during the first months of the pandemic at least.

Research Aims

The above literature review provided a backdrop to this investigation of children's free play patterns and behavior in the context of the COVID-19 pandemic in Hong Kong. The government's response to the outbreak of COVID-19 was to close many outdoor playgrounds, enforce the Prevention and Control of Disease (Prohibition on Group Gathering) Regulation in public and designated premises, and suspend face-to-face interaction in schools. It was anticipated that these preventive measurements would impact children because their use of public facilities for leisure activities was reduced and that it would be useful to examine how their patterns of play were affected. Specifically, the aims of this research were to examine parents' perceptions of children's free play, parents' engagement with their children in free play, their children's free play behavior, and the possible influences of free play on parents' mental health and parent-child relationships.

Methodology

Research Questions

This was a practice-research study of free-play that aimed to investigate parents' perspectives of their children's free play. In particular, it sought to address the following research questions:

- 1. What are parents' perceptions of children's free play?
- 2. To what extent do parents engage in free play with their children?
- 3. What barriers and difficulties do parents experience in engaging in free play with their children?

4. What are the outcomes of free play on parents' mental health and parent-child relationships?

Part A – PLAYBAG Kindergarten Intervention Protocol

Part A was designed to generate data from parents of children attending kindergarten. An invitation to participate in the study was sent to seven kindergartens, of which three were selected based on the following criteria: 1) serving children from deprived socio-economic backgrounds, and 2) willing to adopt the PLAYBAG protocol. The PLAYBAG Intervention protocol was administered to parents and teachers in these three kindergartens between February and June 2021. (Appendix 1)

The criteria for inclusion in the study were: 1) adult parents having a child who attended one of the three kindergartens; and 2) willing to participate in the PLAYBAG service. Target respondents were invited to participate in this research through direct invitation by Playright, through joining the PLAYBAG service.

A mixed-methods approach was adopted in this part of the study. Questionnaires incorporating psychometric scales to measure parents' perceptions of free-play, their participation in free play with their children, barriers they identified in engaging in free play with their children, and the impact of free play with children on their mental health and parentchild relationships were used to generate quantitative data. The questionnaires were administered online, although parents could request a hard-copy version. The pre-test questionnaire was administered in early March 2021 before distribution of the PLAYBAG protocol (Appendix 2). Following briefing and follow-up sessions by Playright in March and April 2021, a post-test questionnaire was administered in late May 2021 (Appendix 3).

Four focus groups with parents were conducted in early June 2021 to gather in-depth qualitative data about their experiences of engaging in free play with their children using the PLAYBAG protocol. The interview guide was developed with reference to the literature review and addressed five main areas: 1) parents' perceptions of free play; 2) parents' and children's engagement with the PLAYBAG protocol; 3) barriers and difficulties engaging in free play; 4) possible outcomes of free play; and 5) suggestion and recommendations from the free play project (Appendix 4).

Prior to the research, the researchers explained to respondents the purposes of the research, measures to ensure confidentiality, and respondents' rights to withdraw from the study. All respondents who completed the questionnaires or participated in the focus groups provided their written informed consent.

Part B – Exploration of Free Play Activities

Part B was designed to generate information from parents who participated in the 'Playright Home Play Box' and 'Medical Play Experiential Box' activities organized by Playright between April 2020 and May 2021. An online questionnaire (with a hard copy version available on request) incorporated psychometric scales to measure parents' perceptions of freeplay, engagement in and barriers to free play with their children, and parent-child relationships. Adult parents were eligible to participate in this part of the study if their child participated in the 'Playright Home Play Box' or 'Medical Play Experiential Box' activities between April 2020 and May 2021. Target respondents received a direct invitation to participate in the study via email from Playright. The questionnaire was accessible between April and May 2021 (Appendix 5). Prior to their participation, respondents were informed of the purpose of the research, measures to ensure confidentiality, and their' rights to withdraw from the study. All respondents provided written informed consent.

Measurement Scales

The design of the questionnaire adopted in Part A was based on the literature review and comprised several scales addressing the dimensions specified below. The entire questionnaire consisted of six parts as follows:

- 1. Part 1 Research background
- 2. Part 2 Respondents' basic information
- 3. Part 3 Parents' perceptions of free play
- 4. Part 4 Engagement with and barriers to free play
- 5. Part 5 Parents' mental health
- 6. Part 6 Parent-child relationships

Three validated scales were included to measure parents' perceptions of free play, their mental health and parent-child relationships.

 Parents' perceptions of free play were measured by the 'Mother's Perception of their Children's Play' (MPCP) scale (Barnett, 2013). The full version of this scale consists of 36 items capturing two constructs, 'Free Play' and 'Structured Play'. Five subscales measured the following domains of 'Free Play': 'Play Freedom' (respecting the child's freedom in play), 'Maternal Rules' (mothers' rules governing their child's play), 'Play Safety' (being cautious about the child's safety during play), 'Imaginative Play' (believing that the child's imaginative play should be encouraged), and 'Gender Stereotyping' (believing that the child's play should comply with socially acceptable gender norms). Two subscales measured the construct 'Structured Play': 'Importance' (believing in the importance of participating in structured out-of-school activities for children) and 'Child's choice' (respecting the child's voice regarding the extent and type of participation in structured out-of-school activities). The internal consistency of the entire scale was satisfactory ($\alpha = .84$), and test-retest reliability was .80 (Barnett, 2013).

Sixteen items were selected from the MPCP Scale for this study, the 'Play Freedom' (7 items), the 'Maternal Rules' (renamed 'Parental Rules' in this study) (5 items), and the 'Play Safety' (4 items) subscales. Responses to all items were measured on a 4-point Likert scale ranging from 'strongly disagree' (score 1), 'disagree' (score 2), 'agree' (score 3) and 'strongly agree' (score 4).

2. Parents' mental health was measured using the Chinese version of the General Health Questionnaire (GHQ-12). The GHQ-12 is a widely used instrument designed to screen for psychological disturbance in a wide variety of clinical groups (Ip & Martin, 2006; Li et al., 2009). Responses to all items were measured on a 4-point Likert scale ranging from 'better than usual' (score 0), 'same as usual' (score 1), 'less than usual' (score 2) and 'much less than usual' (score 3). Higher scores indicate higher mental or emotional disturbance. A GHQ-

12 score of 13-24 indicates emotional disturbance requiring attention. A score of 25 or above indicates serious mental disturbance.

3. Parent-child relationships were measured by the Child-Parent Relationship Scale (CPRS) developed by Robert Pianta in 2011. This study adopted the short version of the CPRS (Driscoll & Pianta, 2011) that comprises two subscales, the conflict subscale (8 items) measuring the degree to which a parent feels that their relationship with their child is characterized by negativity, and the closeness subscale (7 items) assessing the extent to which a parent feels that their relationship with their child is characterized by warmth, affection, and open communication. Responses were measured on a 5-point Likert scale. This provided a maximum score of 40 for the conflict sub-scale, a higher score representing less conflict with children, and a maximum score of 35 for the closeness sub-scale, a higher score indicating greater closeness with children.

The questionnaire in Part B comprised five parts: 1) Research background; 2) Respondents' basic information; 3) Parents' perceptions of free play; 4) Engagement with and barriers to free play; 5) Parent-child relationships. The full version of the MPCP was adopted to measure parents' perceptions of free play.

All elements of the study were approved by The Hong Kong Polytechnic University Human Subjects Ethics Committee.

Data Analysis

Quantitative data from both parts of the study were analysed using SPSS version 26

software. Thematic analysis was adopted to identify and interpret themes generated from the focus groups. First, the researchers familiarized themselves with the data by repeatedly reading all transcripts. Second, the researchers coded the transcripts in terms of relevance to the research questions. Then, the researchers identified and named common themes by constantly comparing the codes. Subsequently, they identified the relationships between the themes. NVivo 12 was used to assist with this analysis. The researchers drew up a code book to document their logic for coding and identifying themes to enhance the trustworthiness and validity of the data analysis process (Clarke & Braun, 2013).

Results

Part A – PLAYBAG Kindergarten Intervention Protocol (Pre-Test)

Demographic Characteristics

A total of 99 respondents completed the pre-test questionnaire (Table 1). Nearly half were from NW school (48.5%), and 43.4% were from KT school.

Table 1

Number of respondents from 3 kindergartens (N=99)

School	Number of Respondents / Percentage
FY	8 (8.1%)
NW	48 (48.5%)
KT	43 (43.4%)

Table 2 shows that most parents were mothers (82.8%), while fathers comprised 17.1% of respondents. Parents with tertiary/university level education or above comprised 38.4% of the sample, while 30.3% of parents attained junior high school level education. 65.7% of parents reported a monthly household income less than HK\$30,000. Moreover, 41.4% and 26.3% indicated that there were four and five persons respectively living together in their household. These statistics indicate that more than half of the families could be regarded as low-income, i.e., with a monthly household income below the median for a 4-person household in Hong Kong². Nearly half of the parents (48.5%) lived in small flats (less than 400 square feet). Almost

² According to the Census and Statistic Department (HKSAR), the median monthly household income in Hong Kong in 2020 was HK\$ 42,000.

two-thirds (64.6%) were in the 31-40 age group. More than half (58.6%) were homemakers, and one-third (34.3%) were engaged in full-time employment. Finally, 60.6% of parents had a male child, significantly more than those with a female child (39.4%).

Table 2

Parents' demographic characteristics (N=99)

Characteristics	Percentage (%)	Frequency
Gender		
Male	17.2%	17
Female	82.8%	82
Education level		
Primary or below	6.1%	6
Junior High school	30.3%	30
Senior High school	25.3%	25
Tertiary / University or above	38.4%	38
Average monthly household income (HK\$)		
(excluding government financial assistance)		
\$10,000 or below	13.1%	13
\$10,001-\$20,000	26.3%	26
\$20,001-\$30,000	26.3%	26
\$30,001-\$40,000	15.2%	15
\$40,001-\$50,000	7.1%	7
\$50,001or above	12.1%	12
Size of residence (square feet)		
200 or less	8.1%	8
201-400	40.4%	40
401-600	33.3%	33
601-800	17.2%	17
801 or above	1.0%	1
Age		
20 and below	1.0%	1
21-25	0.0%	0
26-30	17.2%	17

31-35	32.3%	32
36-40	32.3%	32
41-45	11.1%	11
46-50	5.1%	5
51 and above	1.0%	1
Employment status		
Full-time	34.3%	34
Part-time	5.1%	5
Unemployed	1.0%	1
Homemaker	58.6%	58
Others	1.0%	1
Child's gender*		
Male	60.6%	60
Female	39.4%	39
Number of family members living in the same		
household (including domestic helpers)		
Two persons	1.0%	1
Three persons	16.2%	16
Four persons	41.4%	41
Five persons	26.3%	26
Six persons	15.2%	15

* If any respondent had more than one child participating in this PLAYBAG intervention protocol, then the oldest one was selected.

Intersection of Parents' Perceptions of Play and Parent-Child Relationships

Before the implementation of PLAYBAG in the kindergartens, respondents reported that their children had already engaged in different play and structured activities. This study examined three categories of play activity: 1) Free play, such as imaginative, physical, creative, and construction play; 2) Skills/academic-related or extracurricular school activities; and 3) using electronic devices for entertainment. On average, the children spent 9.38, 5.25 and 8.05 hours each week on free play, skills/academic-related or extracurricular school activities, and using electronic devices for leisure, respectively (Table 3). It should be noted that kindergarten children were still not receiving face-to-face schooling when the initial pre-test questionnaire was administered in early March but received online lessons at home. Such environmental factors will have influenced the amount of time children spent on different tasks, such as the time spent using electronic devices.

Table 3

Average time per	r week spent by	children on	different	activities	(N=99)
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	Mean	Standard
		Deviation
Free play, such as imaginative, physical, creative,	9.38	9.91
and construction play		
Skills or academic-related interest classes and	5.25	6.95
extracurricular school activities		
Using electronic devices for entertainment, such	8.05	12.00
as watching TV, watching videos online, and		
playing video games		

Before the administration of PLAYBAG, measurement of parents' perceptions of play indicated that they 'somewhat agreed' with the three sub-scales, play freedom (M=2.89, SD=.34), parental rules (M=2.78, SD=.38) and play safety (M=2.80, SD=.32). In other words, the parents were inclined to respect the idea of children enjoying freedom in their play, but they also supported upholding parental rules and safety during children's play. Measurement of mental health indicated that the parents generally had mild but not serious emotional disturbance (M=12.79, SD=4.53). The CPRS score (M=58.72; SD=8.40) showed that, in general, parents reported good parent-child relationships (Table 4).

Table 4

Mean	Standard Deviation
2.89	0.34
2.78	0.38
2.80	0.32
12.79	4.53
27.65	6.67
31.07	3.23
58.72	8.40
	2.89 2.78 2.80 12.79 27.65 31.07

Parents' perceptions of play, parents' mental health and parent-child relationships (N=99)

Table 5 illustrates the Pearson Correlation examining the relationship between parents' perceptions of play and parent-child relationships. The mean for play freedom was 2.89 (SD=0.34), and the mean for the closeness subscale was 31.07 (SD=3.23). The relationship between play freedom and closeness was positively correlated and statistically significant (p = .04). These results revealed that parents who endorsed play freedom more enjoyed a closer relationship with their child.

Furthermore, the means for the parental rules, conflict and closeness subscales were 2.78 (SD = .38), 27.65 (SD = 6.67), and 31.07 (SD = 3.23) respectively, and the mean for the total CPRS was 58.75 (SD = 8.40). The relationship between parental rules and conflict was negatively correlated and statistically significant (p = .00), meaning that parents who were more inclined to adopt parental rules in children's play experienced more conflict in the parent-child relationship. The relationship between parental rules and closeness was negatively correlated and statistically significant (p=0.044), indicating that parents who were more supportive of

adopting parental rules in children's play encountered more distance in the parent-child relationship. The relationship between parental rules and the total CPRS was negatively correlated and statistically significant (p=.00); the higher the parental rules score, the worse the parent-child relationship.

Table 5

		Conflict	Closeness	Child-Parent
				Relationship Scale
Play Freedom	Pearson	0.092	0.286	0.183
	Correlation			
	p-value	0.365	0.04*	0.070
Parental	Pearson	-0.382	-0.203	-0.381
Rules	Correlation			
	p-value	0.00*	0.044*	0.00*
Play Safety	Pearson	-0.095	0.027	-0.066
	Correlation			
	p-value	0.348	0.794	0.519

Intersection of parents' perceptions of play and parent-child relationships (N=99)

* *p*<.05

Relationship between the Amount of Time spent by the Child on Play each Week and Parent-Child Relationships

A Pearson Correlation analysis was also conducted to investigate the relationship between the amount of time the child spent on play each week and the parent-child relationship (Table 6). The weekly time spent on free play (M=9.38, SD=9.91) was positively and significantly correlated with the conflict subscale (M=27.65, SD=6.67, p=0.04) and CPRS (whole scale) (M=58.72, SD=8.40, p=0.04). This indicated that when the child spent more time on free play there was less conflict in parent-child interaction, and the parent-child relationship was better.

Table 6

Relationship between the time spent by the child on play each week and parent-child relationships (N=99)

		Conflict	Closeness	Child-Parent Relationship
				Scale
Free play, such as	Pearson	0.203	0.134	0.213
imaginative, physical,	Correlation			
creative, and	p-value	0.044*	0.185	0.035*
construction play				
Skills or academic-	Pearson	024	0.087	0.014
related interest classes	Correlation			
and extracurricular	p-value	0.813	0.395	0.890
school activities				
Using electronic	Pearson	0.075	-0.122	0.013
devices for	Correlation			
entertainment	p-value	0.458	0.228	0.900

* *p*<.05

Part A – PLAYBAG Kindergarten Intervention Protocol (Pre- and Post-Intervention

Comparison)

Key Outcomes of the PLAYBAG Project

In May 2021, all respondents in the Part A pre-test were invited to complete the post-test questionnaire to rate the outcomes of the PLAYBAG project, and 53 did so. Following participation in the PLAYBAG project, 84.9% of respondents agreed that their child spent more time engaged with PLAYBAG at home, and 92.5% agreed that their child spent more time engaging in free play activities at home. Additionally, 98.1% felt more confident in engaging in free play with their children (Table 7).

Table 7

Following participation in the	Strongly Agree	Somewhat	Somewhat
'PLAYBAG' project, to what		Agree	Disagree
extent do you agree that:			
Your child spends more time using	13 (24.5%)	32 (60.4%)	8 (15.1%)
'PLAYBAG' at home.			
Your child spends more time engaged	15 (28.3%)	34 (64.2%)	4 (7.5%)
in free play activities at home.			
I am more confident engaging in free	14 (26.4%)	38 (71.7%)	1 (1.9%)
play activities with my child.			

Outcomes of the PLAYBAG project (N=53)

Pre- and Post- Intervention Comparison

Thirty-two respondents who completed both the pre-test and post-test questionnaires were identified for pre-post analysis. A Paired Samples t-Test was used to compare the pre-test and post-test means for the time spent by the child on play each week (Table 8). There was a significant reduction in the time spent on free play between pre- test (M=11.06, SD=11.13) and post-test (M=6.09, SD=6.75) (t=3.30, p=.002). There was also a significant reduction in the time spent on electronic devices for entertainment between pre-test (M=8.97, SD=10.66) and post-test (M=5.75, SD=6.86) (t=2.34, p=.026). The reduction in time spent on both free play activities and using electronic devices for entertainment was associated with the fact that faceto-face schooling had resumed when the post-test questionnaire was administered. Suddenly, children had significantly less time at home than when the pre-test data were collected in early March 2021.

Table 8

	Pre-test	Post-test	t	P-value
	(Hours)	(Hours)		
Free play, such as imaginative,	11.06	6.09	3.30	0.002*
physical, creative, and construction				
play				
Skills or academic-related interest	5.53	3.59	1.51	0.140
classes and extracurricular school				
activities				
Using electronic devices for	8.97	5.75	2.34	0.026*
entertainment				

Average time spent by child on different activities each week (N=32)

* *p*<.05

The Paired Samples t-Test was also used to compare the mean for parents' perceptions of play, parents' mental health and parent-child relationships (Table 9). The mean for the play freedom subscale post-test (M=3.05, SD=.31) was significantly higher than at pre-test (M=2.92, SD=.31) (t = -2.73, p=.01), indicating parents' increased support for 'play freedom' following

the PLABYBAG intervention. In other words, when parents engaged in the PLAYBAG protocol with their children, they were more likely to endorse the value of play freedom. Moreover, the post-test GHQ-12 mean (M=10.28, SD=3.22) was significantly lower than pretest (M=12.81, SD=4.42) (t=3.137, p=.004), indicating that these parents' mental health status improved following their engagement in the PLAYBAG protocol.

Table 9

Parents' perceptions of play, parents' mental health and parent-child relationships – Pre- and Post- Intervention Comparison (N=32)

	Pre-test	Post-test	t	P-value
Parents' perceptions of				
play				
Play Freedom	2.92	3.05	-2.73	0.010*
Parental Rules	2.82	2.83	-0.205	0.839
Play Safety	2.74	2.73	0.222	0.826
Parents' mental health				
GHQ-12 score#	12.81	10.28	3.14	0.004*
Parent-child relationships				
Conflict	27.41	27.16	0.339	0.737
Closeness	31.66	31.44	0.364	0.718
Child-Parent Relationship	59.06	58.59	0.479	0.635
Scale (whole scale)				

Data regarding variables are presented as mean scores

* p<.05

A lower GHQ-12 score indicates better mental health

Part B – Exploration of Free Play Activities

Demographic Characteristics

By June 2021, 324 respondents had completed the questionnaire for Part B of this study (Table 10). Most parents were mothers (91.1%). 30.9% and 35.8% were aged 31-35 and 36-40 respectively. Nearly half of the parents had completed tertiary/university level education or above (49.7%). Just over half (55%) had a monthly household income lower than HK\$30,000. Moreover, 77.5% indicated that four or more persons lived together in their household. 46% lived in accommodation measuring 400 square feet or less. 40.7% were in full-time employment, and 46.6% reported being homemakers.

Table 10

Characteristics Percentage (%) Frequency Gender Male 8.9% 29 91.1% 295 Female **Education level** 7 Primary or below 2.2% Junior High school 13.6% 44 Senior High school 34.6% 112 Tertiary/University level or above 49.7% 161 Average monthly household income (HK\$) (excluding government financial assistance) \$10,000 or below 7.7% 25 \$10,001-\$20,000 28.4% 92 \$20,001-\$30,000 18.8% 61 13.6% \$30,001-\$40,000 44 \$40,001-\$50,000 11.1% 36 \$50,001 or above 20.4% 66

Respondents' demographic characteristics (N=324)

Size of residence (square feet)		
200 or less	4.9%	16
201-400	41.1%	133
401-600	32.7%	106
601-800	14.8%	48
801 or above	6.5%	21
Age (years)		
20 and below	0.3%	1
21-25	0.9%	3
26-30	8.0%	26
31-35	30.9%	100
36-40	35.8%	116
41-45	20.1%	65
46-50	2.8%	9
51 and above	1.2%	4
Employment status		
Full-time	40.7%	132
Part-time	10.5%	34
Unemployed	1.2%	4
Homemaker	46.6%	151
Others	0.9%	3
Child's gender (If there is more than one chil	ld in the family engaging in free-play a	ctivities, parents may
answer the questionnaire based on one child who	is under twelve years old.)	
Male	50.6%	164
Female	49.4%	160
Child's age (years)		
1-5	62.4%	202
6-11	37.6%	122
Number of family members living in th	he same	
household (including domestic helpers)		
Two persons	2.8%	9
Three persons	19.8%	64
Four persons	37.4%	121
Five persons	25.3%	82
Six persons	10.8%	35
Seven persons or more	4.0%	13

Parents' Perceptions of Play and Parent-Child Relationships

In part B, the variables for the average time spent by children on games or activities each week, parents' perceptions of play and parent-child relationships were analyzed. Respondents reported that the children spent on average 8.90, 3.86 and 6.18 hours per week on free play, skills/academic-related tasks, and using electronic devices for leisure, respectively (Table 11).

Table 11

Average time spent by children on different activities each week – Part B (N=324)

	Mean	Standard	
		Deviation	
Free play, such as imaginative, physical, creative,	8.90	11.97	
and construction play			
Skills or academic-related interest classes and	3.86	7.71	
extracurricular school activities			
Using electronic devices for entertainment	6.18	9.28	

Measurement of parents' perceptions of play indicated the three subscales they supported most were 'play freedom' (M=3.00, SD=.35), 'imaginative play' (M=3.11, SD=.37), and 'child choice' (M=2.96, SD=.34). However, they also endorsed 'parental rules' (M=2.65, SD=.41), 'play safety' (M=2.74, SD=.35) and 'importance' (M=2.89, SD=.34). In other words, while parents respected freedom, child choice and imaginative play in their child's play, they also endorsed the importance of parental rules and safety (Table 12). Interestingly, respondents agreed with the importance of structured play, indicating that parents in Hong Kong were simultaneously inclined to uphold the importance of both free play and structured play. Scores

for the 'gender stereotyping' subscale (M=1.81, SD=.49) indicated that respondents generally disagreed with imposing gender stereotyping in their children's play activities (Table 12).

The CPRS score (M=59.29; SD=8.70) indicated that, in general, parent-child relationship status was considered good (Table 12).

Table 12

	Mean	Standard Deviation
Parents' perception of play		
Play freedom	3.00	0.35
Parental rules	2.65	0.41
Play safety	2.74	0.35
Imaginative play	3.11	0.37
Gender stereotyping	1.81	0.49
Importance	2.89	0.34
Child choice	2.96	0.34
Parent-child relationship		
Conflict	28.36	6.62
Closeness	30.93	3.48
Child-Parent Relationship Scale (whole scale)	59.29	8.70

Parents' perceptions of	of play and parent-child	relationships (N=324)
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Intersection of Demographic Characteristics and Perceptions of Play

In Part B, respondents' demographic characteristics were analyzed to explore the intersection of each subscale of parents' perceptions of play with their demographic profile (Table 13). An independent t-test was conducted to analyze parents' gender and their perceptions of play. The mean of the free play subscale for fathers (M=2.86, SD=.30) was significantly lower than for mothers (M=3.02, SD=.35) (t=-2.27, p=.024), indicating that mothers were more supportive of play freedom than fathers. Furthermore, the mean of the play safety subscale for fathers (M=2.91, SD=.42) was significantly higher than for mothers (M=2.72,

SD=0.34) (t=2.74, p=.007). Therefore, compared with mothers, fathers were more likely to emphasize play safety.

Regarding differences in educational background, the mean of the parental rules subscale for respondents with senior high school or lower educational attainment (M=2.70, SD=.35) was significantly higher than for parents educated to tertiary/university level or above (M=2.59, SD=.46) (p=.014). The mean of the play safety subscale for parents with senior high school or lower educational attainment (M=2.81, SD=.32) was significantly higher than for parents with tertiary/university level education or above (M=2.67, SD=.36) (p=<0.000).

Moreover, the mean of the imaginative play subscale for parents with senior high school or lower education (M=2.99, SD=.34) was significantly lower than for parents with tertiary/university level education or above (M=3.22, SD=.36) (p=<0.00). The mean of the gender stereotyping (M=1.90, SD=.43) and the importance (M=2.95, SD=0.30) subscales for parents with senior high school or lower education were significantly higher than the corresponding subscales (M=1.72, SD=.53) and (M=2.84, SD=.37) for parents educated to tertiary/university level or above respectively. Summing up, compared with parents educated to tertiary/university level or above, parents educated to senior high school level or lower were more likely to endorse parental rules, play safety, gender stereotyping, and the importance of structured play and less inclined to support imaginative play. This implies that promoting free play among less well-educated parents could address their needs better. Since less welleducated parents were more likely to support parental rules, it would be helpful, therefore, to enable them to ensure parental rules are balanced in free play. Different parental education levels exerted no significant differences in terms of play freedom, implying that education about the value of play freedom could be applied to all parents regardless of educational background.

The mean of the parental rules subscale for parents in full-time employment (M=2.58, SD=.42) was significantly lower than for other types of employment status (M=2.69, SD=.40) (p=.017).

Respondents' children were divided into two age groups, 1-5 years and 6-11 years. The mean of the parental rules subscale for children aged 1-5 (M=2.61, SD=.41) was significantly lower than for children aged 6-11 years (M=2.71, SD=.41) (p=.042), meaning that compared to parents of primary school-aged children, parents of children attending kindergarten were less likely to endorse parental rules regarding their children's free play.

As regards the size of the family's accommodation, the mean of the play safety subscale for respondents whose homes were 400 square feet or smaller (M=2.81, SD=.33) was significantly higher than for parents living in larger homes (M=2.68, SD=.35) (p=.001), meaning that parents living in small accommodation were concerned about safety issues impacting their children's free play.

Table 13

	Mean	SD	p-value
Gender			
Play freedom			
Male	2.86	0.30	0.024*
Female	3.02	0.35	
Parental rules			

Intersection of demographic characteristics and parents' perceptions of play (N=324)
Male	2.78	0.37	0.077
Female	2.63	0.41	
Play safety			
Male	2.91	0.42	0.007*
Female	2.72	0.34	
Imaginative play			
Male	3.05	0.41	0.374
Female	3.11	0.36	
Gender stereotyping			
Male	1.92	0.44	0.236
Female	1.80	0.50	
Importance			
Male	2.90	0.28	0.848
Female	2.89	0.35	
Child choice			
Male	3.02	0.25	0.319
Female	2.96	0.35	
Education background			
Play freedom			
Senior High school or below	2.97	0.34	0.474
Tertiary / University level or above	3.03	0.35	
Parental rules			
Senior High school or below	2.70	0.35	0.014*
Tertiary / University level or above	2.59	0.46	
Play safety			
Senior High school or below	2.81	0.32	<0.000*
Tertiary / University level or above	2.67	0.36	
Imaginative play			
Senior High school or below	2.99	0.34	<0.000*
Tertiary / University level or above	3.22	0.36	
Gender stereotyping			
Senior High school or below	1.90	0.43	0.001*
Tertiary / University level or above	1.72	0.53	
Importance			
Senior High school or below	2.95	0.30	0.004*
Tertiary / University level or above	2.84	0.37	

Employment status

Parental rules			
Full-time	2.58	0.42	0.017
Others (non-full-time, unemployed, home-	2.69	0.40	
maker etc.)			
Child's age (years)			
Parental rules			
1-5	2.61	0.41	0.042
6-11	2.71	0.41	
Size of residence			
Play safety			
400 square feet or less	2.81	0.33	0.001
Above 400 feet	2.68	0.35	
Imaginative play			
400 feet or less	3.05	0.36	0.009
Above 400 feet	3.16	0.37	

* p<.05

Intersection of Parents' Perceptions of Play and Parent-Child Relationships

The Pearson Correlation examined the intersection of parents' perceptions of play and parent-child relationships. The play freedom subscale was correlated positively and significantly with the closeness subscale (r=.174, p=.002) and was positively and significantly correlated with the CPRS (whole scale) (r=.150, p=.007). The imaginative play subscale was positively and significantly correlated with the closeness subscale (r=.146, p=.009) and was also positively correlated with the CPRS (whole scale) (r=.141, p=.011). Therefore, parents who were more supportive of play freedom and imaginative play experienced closer parent-child interaction and more positive parent-child relationships as a whole (Table 14).

The play safety subscale was negatively and significantly correlated with the conflict

subscale (r=-.114, p=.040). The gender stereotyping subscale was negatively correlated with the conflict subscale (r=-.152, p=.006), the closeness subscale (r=-.142, p=.011), and the CPRS (whole scale) (r=-.173, p=.002), indicating that parents who endorsed play safety and gender stereotyping in child's play, experienced more conflict in their relationship with their child.

Table 14

Intersection of parents' perceptions of play and parent-child relationships (N=324)

	Correlation	Conflict	Closeness	Child-Parent Relationship Scale (whole scale)
Play freedom	Pearson	0.106	0.174	0.150
	Correlation			
	p-value	0.57	0.002*	0.007*
Parental rules	Pearson	-0.075	0.042	-0.041
	Correlation			
	p-value	0.178	0.450	0.466
Play safety	Pearson	-0.114	-0.013	-0.093
	Correlation			
	p-value	0.040*	0.809	0.096
Imaginative play	Pearson	0.109	0.146	0.141
	Correlation			
	p-value	0.051	0.009*	0.011*
Gender	Pearson	-0.152	-0.142	-0.173
stereotyping	Correlation			
	p-value	0.006*	0.011*	0.002*
Importance	Pearson	-0.067	0.013	-0.046
-	Correlation			
	p-value	0.227	0.821	0.405
Child choices	Pearson	-0.024	0.094	0.019
	Correlation			
	p-value	0.334	0.093	0.736

* p<.05

Relationship between Parents' Perceptions of Play and the Time Spent on Play by Children Each Week

The Pearson Correlation also examined the relationship between parental perceptions of play and the average amount of time children spent on games or activities each week (Table 15). Play freedom, child choices, parental rules, gender stereotyping, play safety, and the importance of parental perceptions of play were correlated with the time children spent on games or activities.

The time spent on free play was positively correlated with play freedom (r=.191, p=.001), imaginative play (r=.223, p=.000) and child choices (r=.130. p=.020). The time spent on free play was negatively correlated with the play safety subscale (r=-.116, p=.037). This indicated that parents who supported play freedom, imaginative play and child choices allowed their children to spend more time on free play.

The time spent on skills or academic-related activities positively correlated with play freedom (r=.129, p=.021), parental rules (r=.128, p=.021), gender stereotyping in play (r=.136, p=.015), importance of structured play (r=.127, p=.022) and child choices (r=.134, p=.016).

Table 15

	~		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	** •
	Correlation	Free play	Skills or	Using
		(e.g.,	academic-	electronic
		imaginative,	related interest	devices for
		physical,	classes and	entertainment
		creative, and	extracurricular	
		construction	school	
		play)	activities	
Play freedom	Pearson	0.191	0.129	0.161

Relationship between parents' perceptions of play and the time spent on play by children each week (N=324)

	Correlation			
	p-value	0.001*	0.021*	0.004*
Parental rules	Pearson	-0.046	0.128	0.052
	Correlation			
	p-value	0.413	0.021*	0.356
Play safety	Pearson	-0.116	0.052	0.032
	Correlation			
	p-value	0.037*	0.350	0.567
Imaginative	Pearson	0.223	0.050	0.063
play	Correlation			
	p-value	0.000*	0.374	0.261
Gender	Pearson	-0.095	0.136	0.037
stereotyping	Correlation			
	p-value	0.088	0.015*	0.512
Importance	Pearson	-0.055	0.127	0.060
	Correlation			
	p-value	0.328	0.022*	0.284
Child choices	Pearson	0.130	0.134	0.104
	Correlation			
	p-value	0.020*	0.016*	0.061

* p<.05

Children's Engagement in Free Play

Children's engagement in free play was analyzed in terms of the persons who engaged in free play with their children and the average time spent on free play per week (Table 16). 72.8% of respondents' children had three or more hours of free play alone per week. 73.5% and 50.7% of parents indicated that mothers and fathers respectively individually spent more than three hours each week in free play with their children. This meant that respondents' children spent more time in free play with their mother than with their father. 61.5% of respondents indicated that their children engaged with other children living together in free play for three or more hours each week.

Table 16

Persons who engaged with children in free play and the time spent on free play each week (N=324)

	6 hours or	3-5 hours	1-2 hours	0 hours	Not
	more				applicable
The child has free play by	25.3%	47.5%	24.7%	1.2%	1.2%
themself	82	154	80	4	4
The child has free play	12.7%	38.0%	41.4%	4.3%	3.7%
with their father	41	123	134	14	12
The child has free play	26.9%	46.6%	24.1%	0.6%	1.9%
with their mother	87	151	78	2	6
The child has free play	13.6%	36.7%	38.3%	7.1%	4.3%
with both parents	44	119	124	23	14
The child has free play	37.7%	23.8%	11.1%	1.9%	25.6%
with other children who	122	77	36	6	83
live together					
The child has free play	8.6%	36.7%	42.6%	5.6%	6.5%
with other children who	28	119	138	18	21
do not live together					
The child has free play	9.0%	31.8%	43.2%	7.4%	8.6%
with family members or	29	103	140	24	28
friends other than those					
mentioned above					
(excluding domestic					
helper)					

Factors Affecting Parents' Participation in Free Play with their Children

Respondents were asked to evaluate the factors affecting their participation in free play with their child using a 5-point Likert scale, a higher score representing a greater influence (Table 17). The three most influential barriers impacting parents' engagement in free play with their children were parents' long working hours (M=3.35, SD=1.07), children's rest schedule

(M=3.17, SD=1.03) and limited indoor space (M=2.96, SD=1.11). The least influential factor was the child's refusal to play with the parent (M=1.82, SD=0.96).

The difference in the means of each factor for various demographic variables was examined using the independent t-test. The mean of the child's rest schedule was significantly higher for girls (M=3.30, SD=1.04) than for boys (M=3.04, SD=1.00) (t=-2.27, p=.024), indicating that parents considered girls' rest schedule to have a more influential adverse impact on free play. Furthermore, there were significant differences in the means of the amount of homework and the child's rest schedule for different aged children. The mean of the amount of homework for children aged 6-11 years was 3.02 (SD=0.98), significantly greater than the mean for younger children (M=2.75, SD=1.07) (t=-2.33, p=.20), indicating that parents considered the homework burden a more influential factor affecting free play of primary school-age children. The mean of the child's rest schedule for children aged 6-11 was 3.01 (SD=0.98), significantly lower than the mean for younger children (M=3.27, SD=1.04); (t=2.25, p=.025).

Table 17

Factors affecting parents' participation in free play with their children (N=324)

Influential Factors	Mean	Standard
		Deviation
The amount of the child's homework	2.85	1.05
Child's rest schedule.	3.17	1.03
Child refuses to play with parent	1.82	0.96
Limited indoor space	2.96	1.11
Safety of the play process (including injury or infection)	2.64	1.16
Family members' rest schedule	2.94	1.05
Parents' long working hours	3.35	1.07
Parents' unstable working hours	2.73	1.21
Parents don't know how to play with the child	2.35	1.04

Parents fail to engage in the play process with their child	2.54	1.05
Parents have difficulty balancing the responsibilities of	2.53	1.03
being a playmate or providing discipline		

Furthermore, the Pearson Correlation examined the correlation between the parents' perceptions of play and the factors affecting parents' participation in free play with their children, revealing a significant positive correlation between the play safety subscale and limited indoor space (r=.184, p=.001) and parents' difficulty balancing the responsibilities of exercising discipline and being a playmate (r=.119, p=.033) as the factors affecting free play. This means that parents who were more concerned about play safety were more likely to identify limited indoor space and difficulties in balancing responsibilities as the factors influencing free play activities. It was anticipated that parents living in small homes would be more concerned about safety issues concerning free play in the home environment. Moreover, parents who were more concerned about play safety were more inclined to impose rules and regulations on their child's free play, thus posing dilemmas for parents in balancing the role of playmate with the need to exercise discipline (Table 18).

Table 18

	Correlation	Limited indoor	Parents have difficulty
		space	balancing the role of
			playmate with the exercise of discipline
			or discipline
Play safety	Pearson Correlation	0.184	0.119
	p-value	0.001*	0.033*

Relationship between play safety and factors affecting parents' participation in free play with their children (N=324)

* p<.05

Part A – Focus Group Analysis

In June 2021, the research team conducted four focus groups for parents of children attending one of the three kindergartens. Twenty-four parents, all female, attended the focus groups (Table 19).

Table 19

Number of participants in focus groups (N=24)

School	Date of Focus Groups	Number of Participants / Percentage		
FY	11 th June 2021 (1 group)	2 (8.3%)		
NW	7 th June 2021 (2 groups)	16 (66.7%)		
КТ	8 th June 2021 (1 group)	6 (25.0%)		

Thematic analysis of the focus group discussions identified four key themes addressing parents' experiences of free play, particularly regarding the adoption of PLAYBAG in their home: 1) an egalitarian and non-judgmental attitude; 2) the quality of encounters with children in free play; 3) parents' discoveries about their child; and 4) sustaining new meanings of their child's identity.

An Egalitarian and Non-judgmental Attitude

In using PLAYBAG at home, parents shared their insights regarding the need for an egalitarian and non-judgmental attitude when engaged in free play with their children that were very important to enable them to enjoy free play activities. Free play could be regarded as an opportunity to restore the power difference between parents and children. Parents' awareness

of relinquishing their own power and authority when teaching children to play was essential. The more they were inclined to respect children's freedom and their right to play as they wished, the more power between parent and child was equalized. This could facilitate the establishment of trustful and respectful elements in the parent-child relationship. Below are illustrative excerpts from the focus group discussions:

I used to adopt a more leading role to teach my son how to play. But I changed my mind after learning how to use the PLAYBAG. I began to understand my son could create many ways to play. When I stopped controlling the way he plays and judging him right or wrong, he had more freedom to discover how to use different loose parts in the PLAYBAG to create his own ways to play. (P1 from NW kindergarten)

I used to be like a teacher teaching my son how to play. If he did not follow my instructions, I was inclined to change his behavior and guide him on the proper ways to play. But, after using PLAYBAG in our free time, I was surprised to discover that he had his own ways of innovative thinking. Sometimes, I let him be the teacher to teach me how to play instead, it sounds interesting... (P4 from NW kindergarten)

I used to believe that my daughter did not know how to play, and therefore needed her parents to guide her to play. After using PLAYBAG, I observed that she could create many ways to play using the loose parts in the PLAYBAG. I discovered that the more respect and freedom I allowed her to play, the more creative ways she discovered. (P18 from KT kindergarten)

The Quality of Encounters with Children in Free Play

It is important to foster an environment that facilitates children's exploration in free play to cultivate good quality engagement between parents and children in free play. Promoting a good environment to facilitate free play does not mean providing a spacious environment. Rather it refers to providing and arranging necessary resources for free play, such as enough time and materials for free play and even a good family relationship, as indicated by the following focus group excerpts:

My son actively asked for more time to use PLAYBAG to play, and I was happy to know that he could be so inventive and motivated to play with the loose parts in the bag. I allowed him to include the other toys and mixed them together when using the PLAYBAG. I was so happy that he could play with these old toys again, such as LEGO, that he had neglected to play with for years. (P20 from KT kindergarten)

There was a torch and some toy animals in the PLAYBAG. I observed my daughter using the torch to project shadows of different toy animals on the wall. She was so excited to explore different effects and sizes of the shadows. Therefore, I moved away some furniture to enable her to project the shadows on the wall. We found that the effect of the shadows was clearer if the light was dim so, I suggested closing the curtains and turning off the light, or even playing together at nighttime. (P21 from KT kindergarten)

Parents' Discoveries about their Child

Engagement with their child in PLAYBAG enabled parents to discover their children's potential, abilities and personalities and adopt different perspectives to understand their children to enhance connection and bonding in family relationships. Parents' sensitivity to their children's ability and potential in free play was crucial in this process. Positive attitudes, such as appreciation and encouragement, could help to strengthen children's motivation to make discoveries in free play, as illustrated by the following excerpts from the focus group discussions:

My son liked to play with the magnet. He tested which things could be attracted by it. He began to acquire lots of insight into the magnetic properties of different things. I learned that he had a talent for discovering and exploring new things. He even pretended to be an airport security guard and used the magnet to examine any prohibited things in the luggage. (P23 from FY kindergarten)

My children liked to play with the plastic tubes, and they linked them together to form a long plastic tube with different lengths and sizes. They picked up some marbles and dropped the marbles from one end of the tube and measured the time it took for the marbles to come out the other end of the tube. I clapped my hands and showed my great appreciation to them. I discovered that my children had the potential to try out new things in free play. (P8 from NW kindergarten)

Sustaining New Meanings of Children's Identity

Parental discovery of their child's abilities of which they were previously unaware enabled them to facilitate the development of their child's potential that was very important not only to help the child maintain their motivation to try out free play in their daily activities but also foster the healthy development of child's self-identity. Positive self-identity could be constructed in free play; therefore, parents' efforts to strengthen identity formation were needed, as revealed by the following focus group discussion excerpts:

My daughter liked to use the plastic tube to chat with me at nighttime. In particular, before we went to sleep, she whispered softly at one end of the tube and asked me to guess what she was saying. She was so cute and loved to say 'I love you mom' using the plastic tube. Gradually, that plastic tube would be our special way to chit chat our secrets. I gradually found that my lovely daughter was a caring child. She was a girl who could share her love and care with others. I loved her not only because she was my daughter, but also because she possessed the caring characteristics that I deeply appreciated. (P12 from NW kindergarten)

Discussion and Recommendations

Outcomes of the PLAYBAG Protocol

This study sheds light on validating the outcomes of the PLAYBAG protocol implemented in kindergartens. More than 80% of respondents in the Part A post-test agreed that they had more confidence to engage in free play activities with their child and their child spent more time using PLAYBAG and other free play activities at home. Respondents' subjective evaluations demonstrated the effectiveness of the PLAYBAG protocol.

The study findings revealed that the PLAYBAG protocol could enhance parents' understandings and belief in the value of play freedom, which might be regarded as an important principle in free play. Findings from the focus group discussions echoed this important principle because the parents expressed their insight into respecting children's freedom of play and the importance of fostering a suitable environment to facilitate children's engagement in free play. Respecting children's play freedom and imaginative play in free play was positively associated with closeness between parents and children, subsequently enhancing the parent-child relationship.

Additionally, improvement in parental mental health measured by the GHQ-12 scale after engaging in the PLAYBAG intervention protocol revealed the potentially positive association between free play and parents' mental health. It could be anticipated that the more parents enjoy play freedom with their children, the closer the parent-child relationship will be and subsequently, the better parental mental health. The COVID-19 pandemic significantly affected people's mental well-being, in particular, anxiety, depression, stress, and post-traumatic stress (Shah, 2020; Şimşir et al., 2021). As such, the outcome of the PLAYBAG protocol on parents' mental health could be further promoted to the public, specifically addressing parents' needs for tackling the impact of stress and anxiety in the pandemic.

Enhancement of Parents' Perceptions of Free Play and Recommendations

This study's findings revealed that parents were inclined to respect freedom, children's choices and imaginative play but also embraced parental rules and safety. They tended not to endorse gender stereotyping in free play and were inclined to simultaneously uphold the importance of both free play and structured play. Parents in Hong Kong commonly accept structured activities for their children out-of-school (Ren & Zhang, 2020). Parents may mix up structured play and free play; therefore the uniqueness and outcomes of free play should receive extra emphasis. Some parents may experience difficulty in striking a balance between the two. Ways of enhancing parents' understanding of the possible interplay and synergy between free play and structured play should be included in parental education programmes.

Analysis of the intersection of parents' perceptions of play and parent-child relationships validated the positive association between play freedom and imaginative play and parent-child closeness. This supports the notion that children with good imaginative play skills demonstrate social competence in their relationships with others (Uren & Stagnitti, 2009). Therefore, parents who embrace imaginative play facilitate their child's competence in positive interaction.

Moreover, the association between imaginative play and parent-child relationships echoes Kwon et als' (2013) study that found that parents who engaged in imaginative play with their child were more responsive to their child's interests and needs. This supports the notion that children tend to engage more with parents who demonstrate more positive interaction and process-orientation during free play.

Furthermore, the study also affirmed that the more parents focused on play safety and gender stereotyping in their child's play, the more likely it was that conflict would occur in parent-child relationships. Gender stereotyping in play limits children's choices and freedom in choosing the types of toys and games to use in free play. In other words, it also challenges children's freedom to make their own rational choices (Hjelmér, 2020). From a sociological perspective, gender stereotyping embedded in children's choices about play represents the construction of socially acceptable gender norms in culture (MacNaughton, 2006; Wood, 2014). Parents' attitudes to gender stereotyping influence children's freedom to choose both play materials in free play and also the ways to play. Whenever differences between parents' and children's perceptions regarding socially acceptable gender behavior are expressed in free play, tension and conflict may arise in parent-child relationships. Parents' awareness of gender stereotyping in free play could be enhanced by strengthening the content of the parents' workshop in the PLAYBAG protocol. Enhancement of the PLAYBAG intervention protocol to address the specific needs of parents from different socio-economic backgrounds is recommended. For instance, parents' sessions addressing the needs of fathers, parents with full time employment, parents with children from different age groups etc.

Play safety issues in free play also generated dilemmas between parents and children. Quantitative data from the study revealed that the more parents embraced the play safety principle in free play, the more conflict arose in the parent-child relationship. These findings were reinforced by the focus group discussions in which parents expressed concerns about the safety of the toys or loose parts and the possibility of endangering other people in the home. These findings echoed Lee et al. (2015), who identified parents' safety concerns and surveillance as specific barriers to children's free play. Our findings go further, confirming that parents need to know more about balancing safety issues and respect for children's freedom in free play. It is recommended that stimulated situations be included in briefing sessions to help parents discuss possible solutions to these dilemmas. These sessions could include discussion on handling safety issues in free play, awareness of gender stereotyping, parental facilitation of process-oriented play, etc.

Enhancement of Parents' Engagement in Free Play with Children and Recommendations

Both the quantitative and qualitative findings of the study revealed that fathers were less involved in free play with their children than mothers. Fathers' relationships with their children are especially important for children's development and gender role modeling (Coe et al., 2019). Undoubtedly, co-parenting enables parents to raise their children together in a mutually respected, agreed and collaborative manner. It is important that both parents are involved in child-care issues (Fagan & Pearson, 2021). Therefore, the importance of free play and engagement with children in free play should be promoted to fathers. While fathers' involvement is unquestionable, mothers' co-parenting effort in supporting fathers' involvement in free play is also important (Perry et al., 2021; Sperber & Whitton, 2021).

The research identified major barriers to parental engagement in free play with their children. For instance, long working hours limited parental participation in free play time with their children. Long working hours are especially problematic in Hong Kong since its working population endures some of the longest working hours in the world, and long working hours are associated with anxiety among Chinese working adults (Chan et al., 2021). In this context, quality time in the family is especially important for maintaining family relationships (Kremer-Sadlik & Paugh, 2007). It is recommended that the promotion of free play should focus on the needs of families whose parents have working hours. Everyday activities that can embed the principles of free play may be affordable for these families. Even with the constraints of long working hours, quality time in unstructured interaction with children in free play can promote family relationships and relieve the anxiety and stress related to long working hours. In addition, there is a need to advocate for policies to tackle the problems of long working time, such as legislation on standard working hours. Family policies should be established and reviewed regularly regarding the quality of family life and work-life balance (Chan et al., 2021).

The amount of homework for children was another significant barrier to undertaking free play in the home. A large volume of homework is common in Hong Kong and can jeopardize children's well-being. As a result, the trade-off would be family conflict, limited leisure time, deprived sleeping time, tension and stress (Cho & Chan, 2020). Given that free play positively impacts children's mental health, as found by Gray (2011), it is strongly recommended that schools enhnace the homework policies to provide children more quality time for free play in the home. It is recommended that play is regarded as a platform that enhances the interplay between school curriculum and homework. This recommendation reiterates the positive outcomes of children's learning abilities (divergent thinking, problem-solving ability, logical thinking, etc.) when children attend school with a play-based curriculum (Reynolds et al., 2011). Therefore, it is strongly recommended that schools incorporate free play elements in their curriculum and homework design, and create a free play-friendly school environment to enable children to experience free play. This study echoes the suggestions stipulated in the Education Bureau's Curriculum Framework on Parent Education (Kindergarten).³ With reference to this curriculum framework, the contents of parent education should foster parents' understanding of the importance and benefits of parental involvement in free play. Parental education on children's free play might include, principles and benefits of free play, effective ways to engage children in free play, creating quality free play time in families, co-parenting perspective of engaging fathers and mothers in free play.

Regarding limitations on indoor space, parents worried about safety issues concerning free play in the home. Indoor physical space is one of the determinants influencing children's free play (Lee et al., 2015). Because of the COVID-19 pandemic, the closure of outdoor leisure facilities and playgrounds in Hong Kong further diminished children's outdoor play activities (Moore et al., 2020). The promotion of free play should provide practical examples of free play

³ Curriculum Framework on Parent Education (Kindergarten) was released to the public by Education Bureau in September 2021 https://www.parent.edu.hk/en/article/framework_kg

with limited resources and physical space to address parents' safety concerns regarding their children's free play in limited indoor space. The HKSAR government is strongly recommended to commit in policy planning and implementation of child-friendly free play outdoor space. It is very important to incorporate spaces to facilitate children's free play when designing playgrounds and public facilities (Casey, 2007). As Rossini and Yiu (2021) have indicted, significant public space could be released from private ownership of publicly accessible space (POSPDs), positively impacting the district, such as promoting social activities. In view of this, property developers should consider incorporating child-friendly free play public spaces when they plan new residential estates and shopping malls. By referring to the concept of 'doorstep play'⁴, various stakeholders in the community can consider creating child-friendly free play spaces enabling children to enjoy free play in a safe environment. Apart from improving the designated playgrounds provided by Housing Authority and Leisure and Cultural Services Department, more shared space can be created in the community enabling families to enjoy indoor and outdoor free play (Chan et al., 2008).

Enhancement of Home-School Collaboration on Free Play and Recommendations

Enhancement of home-school collaboration is recommended for implementing the PLAYBAG protocol in Hong Kong. The outcomes of free play can be enhanced if school/ home

⁴ Playing Out began in Bristol in 2009 and is now a national movement for change advocating playing out near home as a normal, everyday part of life for all children. Creating doorstep play needs community stakeholders to ensure that places for children to play should be safe, less traffic-dominated and within a reasonable walking distance. (https://playingout.net/about/)

collaboration is strengthened. As Aras (2016) pointed out, teachers' training is important, especially strategies to enhance the quality of free play time, teachers' roles during free play, and the benefits of free play on children's development. Schools need resources from the Education Bureau and Social Welfare Department for implementing teacher training. Secondly, home-school collaboration is critical because it can promote parents' participation (Yuen, 2011). So, schools can invite parents to contribute to the design of a child-friendly free play school environment. Thirdly, schools can promote free play with students' families through free play experiential programmes for the general public. Students' families can act as free play ambassadors to promote free play in the community. Promotion of free play, positive outcomes regarding enhancement of mental health and parent-child relationships, should be emphasized in community education programmes. In this sense, schools and families can co-create the environment in which free play can be promoted in schools and the community.

Children's Voices on Free Play and Recommendations

To foster a playful community, children's voices cannot be neglected (Lee et al., 2015). Nicholson et al (2014) pointed out that children's voices should be heard and included in policymaking. According to the ecological framework, several factors, including families, neighborhood, society and policies, influence and determine children's rights to free play and its accessibility. However, children's voices are often neglected because they are the most powerless in the ecological framework (Lee et al., 2015). So, the empowerment of children voices by means of a constitutional children and youth committee is strongly suggested. Different models or tools for children's participation should be adopted to fit various needs of children. Moreover, trainings are also required for the adults to listen, collect and respect children's voices in regard to those child-related issues.

Study Limitations

This study drew on the perspectives of parents only regarding their experiences of free play with their children. Undoubtedly, children's perspectives are equally important, and this could be a focus of future research. Free play should be applicable across different demographic and socio-cultural backgrounds. Therefore, the generalizability of this study is limited to the parents who participated in the Playright network and shared their stories in focus groups. Thirdly, study respondents' accounts of their perceptions and experiences were dependent on their retrospective recall that might have been affected by memory loss, reluctance to recall information, and maturation.

Conclusion

This study was designed to address the following research areas: 1) parents' perceptions of free play; 2) parents' engagement in free play with their children; 3) barriers and difficulties encountered in engaging in free play with children; 4) the outcomes of free play, specifically regarding parent-child relationships and parents' mental health. This study confirmed that the PLAYBAG intervention protocol generated positive outcomes in enhancing parents' perceptions of free play, fostering positive parent-child relationships and promoting parents' mental health. Recommendations from the study suggest enhancing the PLAYBAG protocol to address the specific needs of parents from different socio-economic backgrounds and help resolve the difficulties experienced by parents in engaging in free play with their children. Innovate policies to streamline the homework burden for children, promote an appropriate work-life balance and create a child-friendly free play environment should be promoted through collaboration of different stakeholders in the community. Last but not least, consideration should be given to empowering children's voices in the co-creation of a free play environment.

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Appendix 1

^智playright

關於智樂

信念

智樂代表兒童的聲音。我們深信遊戲是開啟兒童潛能的鑰匙,亦是開創未來的動力。

工作

智樂兒童遊樂協會(智樂)成立於 1987 年,是一所慈善團體,透過遊戲讓兒童擁有豐 盛的生命。我們鼓勵兒童遊戲,並推動家長、老師、政策制訂者及大眾相信遊戲能照 顧兒童成長中的各項關鍵需要。

我們透過「倡導」、「資源」、「外展」、「環境」四個領域的工作,讓香港及亞洲 區的兒童開啟潛能,掌握未來。每年受惠的兒童及家庭逾二十五萬人。

賽馬會社區持續抗逆基金——智樂遊戲新常態

全校教職員遊戲培訓 (第一節)

形式

工作坊將以互動的形式進行,內容包括遊戲體驗、主題及影片分享、小組討論、個案 研討。

工作坊内容:

- ▶ 遊戲工作的基本理念
- ▶ 兒童的天性及自由遊戲的定義
- ▶ 自由遊戲對兒童成長的價值
- ▶ 智樂遊戲新常態:老師角色
- ▶ 例子分享

第一部份:遊戲的本質、兒童的天性及童年

- 基本理念 , 兒童的天性
- 自由遊戲的定義

第二部份:自由遊戲對兒童成長的價值

- 對兒童價值
- 成人的角色
- 例子分享

第三部份: 簡介智樂遊戲新常態及老師的角色

- 成人的角色
 - 1.延伸智樂遊戲盒子
 - ◆ 目的:
 - 豐富小朋友遊戲物資
 - 建立小朋友遊戲習慣
 - ◆ 3「加」加數量 / 加添新意 / 加種類
 - ◆ 還有甚麼 Loose parts 可以加入遊戲盒內呢?
 - 1.可以移動,攜帶和重新設計
 - 2.可以獨立或組合使用
 - 3.沒有具體的玩法
 - 2.跟進學生遊戲狀況
 - ◆ 物資上了解小朋友喜好/明白各家庭的需要/學校注重遊戲
 - ◆ 遊戲日記 Play Diary:
 - 目的:
 - 紀錄小朋友遊戲
 - 建立遊戲習慣
 - 令家長明白「遊戲」是什麼
 - 鼓勵親子遊戲
 - 3.支援小朋友遊戲:如何介入?
 - ◆ 不同程度介入-支持小朋友主導遊戲
 - 停止
 - 指示
 - 重新定向
 - 引入物料/提示
 - 策略性地加減物料

Appendix 2

Practice Research on Free Play Intervention for Kindergarten Children – Parents Questionnaire (Pre-Test)

Part One- Parental Consent

Hi, thank you very much for participating in **Practice Research on Free Play Intervention for Kindergarten Children** by the collaboration of Playright, Dr. Wallace TSANG (College of Professional and Continuing Education, The Hong Kong Polytechnic University) together with Dr. Johnson CHEUNG (Department of Social Work and Social Administration, The University of Hong Kong). This research project has been approved by The Hong Kong Polytechnic University Human Subjects Ethics Committee.

This participant consent form is to explain the relevant information of this study to you.

The purpose of this research is to understand the use of "PlayBag" by the parents and its impact. The research period is from February 2021 to June 2021. Data will be collected twice in the form of this questionnaire. The first collection period is from early to mid-March; while the second collection will be late May (he/she who fills in the form must be the parent of the kindergarten child; the same person must fill in both questionnaires). This questionnaire will be collected online. It takes about 20-25 minutes to fill out the form. If parents need to fill in a printed questionnaire, please contact the relevant person in charge of the kindergarten.

If there is more than one kindergarten child in the family participating in the "PlayBag" project, parents may answer the questionnaire based on the oldest child.

The collected information is for research purposes only. Personal information will be kept strictly confidential, and all information will be destroyed within one year after the end of the research. If you agree to participate in the research in this research participant consent form, you can still withdraw from this research at any time without any reason.

If you have any enquiries or questions in the future, please contact the researcher Dr. Wallace TSANG (3746-0326) or Ms. Lilian WONG (Playright) (2898-2922).

1. I understand the above content and agree to participate in this research. □Agree (Please ✓ to agree)

2. Before going into the questionnaire, please fill in your "Research Independent ID":

(The research independent ID is the respondent's month of birth + the last 4 digits of the respondent's phone number. For example, the respondent was born in January, the phone number is 98765432, hence the ID will be 015432)

	х	x	х	х				
Respondent's Birth Month					Last	4 digits o	of phone	number

Part Two - Basic Information

(Please \checkmark to indicate your answer)

1.	Parent's gender : DMale DFemale
2.	Parent's Education level : Drimary or below Dunior high school DSenior High school Tertiary / University level or above
	Average monthly household income (HK\$) (excluding government financial assistance) □ \$10,000 or below □\$10,001-\$20,000 □\$20,001-\$30,000 □\$30,001-\$40,000 □\$40,001-\$50,000 □\$50,001 or above
4.	Type of housing: □Private □ Public housing estates □Home Ownership Scheme Flats (HOS) □ Subdivided room □Village house □Others
5.	Actual area of residence (square feet) :
	$\Box 200 \text{ or less } \Box 201-400 \Box 401-600 \Box 601-800 \Box 801 \text{ or above}$
6.	Parent's age □20 and below □21-25 □26-30 □31-35 □36-40 □41-45 □46-50 □51 and above
7.	Employment status of parent : DFull time DPart-time Unemployed DHomemaker DOthers
8.	Is there more than one kindergarten child in the family participating in the "PlayBag" project? □Yes (If so, please refer to the older child for the following questions.) □No
9.	Name of the kindergarten the child is currently attending:
	□ FY Kindergarten □ NW Kindergarten □ KT Kindergarten
10.	How old is the child : $\Box 2$ $\Box 3$ $\Box 4$ $\Box 5$ $\Box 6$
11.	The child's current grade : \Box Nursery \Box K1 \Box K2 \Box K3
12.	The child's class :(Please fill in)
13.	The child's gender :
14.	The child's race : Chinese Non-Chinese · Please specify ()
15.	Total number of family members living in the same household (including domestic helpers) : $\Box 2$ $\Box 3$ $\Box 4$ $\Box 5$ $\Box 6$ $\Box 7$ or above

Part Three - Parents' Attitudes to Children's Playing

1. Please select your level of agreement with each of the following statements in the table below. (Please to indicate your answer)

		Strongly Agree (4)	Somewhat Agree (3)	Somewhat Disagree (2)	Strongly Disagree (1)	Don't Know (0)
A.	Children should be given a lot of freedom to decide how they want to play.					
В.	Children should be allowed to take their toys apart.					
C.	Children should be able to decide when to share their toys and when not to.					
D.	Children should be allowed to play with whomever they please.					
E.	Children should be allowed to play anywhere in the house as long as their health and safety are not endangered.					
F.	Children should be allowed to watch TV whenever they want to.					
G.	A child using a toy in the wrong way should be corrected.					
Н.	There are certain rooms that should be off limits to children when they play.					
I.	Children should not be allowed to leave their toys around the house.					
J.	A lot of discipline is essential in raising children.					
K.	Children should play with toys the way they are meant to be used.					
L.	It is important that children follow the rules of the game when they play.					
M.	School-age children should be allowed to play without supervision.					
N.	Physical play should be allowed only outdoors or in designated areas.					
О.	It is important to watch out for the safety of my child when he or she is playing.					
P.	Children can easily get hurt when they're playing.					

Part Four – Free Play Situation

The "Free Play" defined in this section refers to the activities that children play in their spare time. This activity should be intrinsically motivated, and there is no specific structure or rules in the play process; children can make decision freely, and it is not an activity to achieve a certain goal. It does NOT include skills or academic interest courses and school extracurricular activities, watching TV, watching videos online, playing video games, electronic games such as Nintendo or mobile phones etc.

The following questions are still about the children in your family who are in kindergarten. If more than one child in your family is in kindergarten, answer the following questions based on the oldest child.

1. How much time on average does your child spend in the following games or activities each week? (Please indicate in integer hours)

		Hours (integer)
A.	Free play, such as imaginative, physical, creative, and	
	construction play	
В.	Skills or academic-related interest classes and extracurricular	
	school activities	
C.	Using electronic devices for entertainment	

2. When your child engages in "free play", averagely how much time do they spend with the person on the table below in a week? (Please indicate ✓ on each of the following cases)

		Often 6 hours or more (4)	Occasional 3-5 hours (3)	Seldom 1-2 hours (2)	Never 0 hours (1)	Not applicable (0)
A.	The child has free play by herself/ himself.					
В.	The child has free play with the father.					
C.	The child has free play with the mother.					
D.	The child has free play with both the parent.					
E.	The child has free play with other children who live together					
F.	The child has free play with other children who does not live					
	together.					
G.	Play with family members or friends other than the above mentioned (excluding domestic helper).					
3. Which of the following elements do you think is included in your child's free play? (Please indicate ✓ on each of the following cases)

	Plenty (5)	A lot (4)	half-half (3)	A little (2)	None (1)
A. Creativity					
B. Cooperation					
C. Communication					
D. Thinking					
E. Intelligence					
F. Physical fitness					
G. Imagination					

4. When your child engages in "free play", how much do you think the following factors will affect him/her? (Please indicate ✓ on each of the following cases)

		Huge (5)	A lot (4)	half-half (3)	A little (2)	None (1)
A.	The amount of his/her homework					
В.	His/her rest schedule.					
C.	Child refuses to play with parent.					
D.	Limited indoor space					
E.	Safety of the play process (Including: injury or infection)					
F.	Family members' rest schedule					
G.	Parents' long working hours					
H.	Parents' unstable working hours					
I.	Parents don't know how to play with the child					
J.	Parents fail to engage in the play process with their child					
K.	Parents have difficulty balancing between the responsibilities of being a playmate or to discipline.					

Part Five - Parents' Physical and Mental Health

1. In the past few weeks, how do you compare the status of each of the following items with usual (Please to indicate your answer)

		Better than Usual (0)	Same as Usual (1)	Less than Usual (2)	Much Less than Usual (3)
A.	Been able to concentrate on what you're doing?				
В.	Lost much sleep over worry?				
C.	Felt you were playing a useful part in things?				
D.	Felt capable of making decisions about things?				
Е.	Felt constantly under strain?				
F.	Felt you couldn't overcome your difficulties?				
G.	Been able to enjoy your normal day-to-day activities?				
H.	Been able to face up to your problems?				
I.	Been feeling unhappy and depressed?				
J.	Been losing confidence in yourself?				
K.	Been thinking of yourself as a worthless person?				
L.	Been feeling reasonably happy, all things considered				

Part Six – Parent Child Relationship

1. Please select the most appropriate description of the relationship between you and your child in each statement below. (Please to indicate your answer)

		Definitely Applies (5)	Applies Somewhat (4)	Neutral (3)	Not Really (2)	Definitely Does Not Apply (1)
A.	I share an affectionate, warm relationship with my child.					
В.	My child and I always seem to be struggling with each other.					
C.	If upset, my child will seek comfort from me.					
D.	My child is uncomfortable with physical affection or touch from me.					
E.	My child values his/her relationship with me.					
F.	When I praise my child, he/she beams with pride.					
G.	My child spontaneously shares information about himself/herself.					
H.	My child easily becomes angry at me.					
I.	It is easy to be in tune with what my child is feeling.					
J.	My child remains angry or is resistant after being disciplined.					
K.	Dealing with my child drains my energy.					
L.	When my child is in a bad mood, I know we're in for a long and difficult day.					
M.	My child's feelings toward me can be unpredictable or can change suddenly.					
N.	My child is sneaky.					
О.	My child openly shares his/her feelings and experiences with me.					

End of Questionnaire Thanks for Your Valuable Time

Appendix 3

Practice Research on Free Play Intervention for Kindergarten Children – Parents Questionnaire (Post-Test)

Part One- Parental Consent

Hi, thank you very much for participating in **Practice Research on Free Play Intervention for Kindergarten Children** by the collaboration of Playright, Dr. Wallace TSANG (College of Professional and Continuing Education, The Hong Kong Polytechnic University) together with Dr. Johnson CHEUNG (Department of Social Work and Social Administration, The University of Hong Kong). This research project has been approved by The Hong Kong Polytechnic University Human Subjects Ethics Committee. The purpose of this research is to understand the use of "PlayBag" by the parents and its impact.

If you have already completed the questionnaire (pre-test) when we collected in late of March to early May, then we now invite you to fill in this questionnaire for the second time (post-test).

The one who fills in this questionnaire must be the parent of the kindergarten child and should be the same person who completed last time.

This questionnaire will be collected online. It takes about 10-15 minutes to fill out the form. If parents need to fill in a printed questionnaire, please contact the relevant person in charge of the kindergarten.

If there is more than one kindergarten child in the family participating in the "PlayBag" project, parents may answer the questionnaire based on the oldest child.

The collected information is for research purposes only. Personal information will be kept strictly confidential, and all information will be destroyed within one year after the end of the research. If you agree to participate in the research in this research participant consent form, you can still withdraw from this research at any time without any reason.

To express our thankfulness, a package of children toys will be offered to those parents who complete both pre-test and post-test.

If you have any enquiries or questions in the future, please contact the researcher Dr. Wallace TSANG (3746-0326) or Ms. Lilian WONG (Playright) (2898-2922).

1. I understand the above content and agree to participate in this research. □Agree (Please ✓ to agree)

2. Before going into the questionnaire, please fill in your "Research Independent ID": (That is the number you fill in last time)

(The research independent ID is the respondent's month of birth + the last 4 digits of the respondent's phone number. For example, the respondent was born in January, the phone number is 98765432, hence the ID will be 015432)

	х	х	х	х				
Respondent's					d I ast	1 digits o	of phone	numbor
Birth Month					U Last	T uigits t	n huone	number

Part Two - Basic Information

(Please ✓ to indicate your answer)

- 1. Name of the kindergarten the child is currently attending :
 - □ FY Kindergarten □ NW Kindergarten
- **2.** The child's current grade : \Box Nursery \Box K1 \Box K2 \Box K3
- 3. Please fill in your child's full name (Only for those parents who complete both the pre-test and post-test; for the purpose of research team to offer you the gift)

Last	First	
Name	Name	

Part Three - Parents' Attitudes to Children's Playing

1. Please select your level of agreement with each of the following statements in the table below. (Please to indicate your answer)

		Strongly Agree (4)	Somewhat Agree (3)	Somewhat Disagree (2)	Strongly Disagree (1)	Don't Know (0)
A.	Children should be given a lot of freedom to decide how they want to play.					
В.	Children should be allowed to take their toys apart.					
C.	Children should be able to decide when to share their toys and when not to.					
D.	Children should be allowed to play with whomever they please.					
E.	Children should be allowed to play anywhere in the house as long as their health and safety are not endangered.					
F.	Children should be allowed to watch TV whenever they want to.					
G.	A child using a toy in the wrong way should be corrected.					
H.	There are certain rooms that should be off limits to children when they play.					
I.	Children should not be allowed to leave their toys around the house.					
J.	A lot of discipline is essential in raising children.					70

K.	Children should play with toys the way they are meant to be used.			
L.	It is important that children follow the rules of the game when they play.			
M.	School-age children should be allowed to play without supervision.			
N.	Physical play should be allowed only outdoors or in designated areas.			
О.	It is important to watch out for the safety of my child when he or she is			
	playing.			
P.	Children can easily get hurt when they're playing.			

Part Four – Free Play Situation

home.

child.

С.

I have more confidence to engage in free-play activities with my

The "Free Play" defined in this section refers to the activities that children play in their spare time. This activity should be intrinsically motivated, and there is no specific structure or rules in the play process; children can make decision freely, and it is not an activity to achieve a certain goal. It does NOT include skills or academic interest courses and school extracurricular activities, watching TV, watching videos online, playing video games, electronic games such as Nintendo or mobile phones etc.

The following questions are still about the children in your family who are in kindergarten. If more than one child in your family is in kindergarten, answer the following questions based on the oldest child.

1. After joining this 'PlayBag' project, to what extent you agree in the following questions: (Please ✓ to indicate your answer									
	Strongly	Somewhat	Somewhat	Strongly					
	Agree	Agree	Disagree	Disagree					
	(4)	(3)	(2)	(1)					
A. Your child engages more time to use 'PlayBag' in home.									
B. Your child engages more time to have free-play activities in									

2. After joining this 'PlayBag' project, how much time on average does your child spend in the following games or activities each week? (Please indicate in integer hours)

		Hours (integer)
A.	Free play, such as imaginative, physical, creative, and	
	construction play	
В.	Skills or academic-related interest classes and extracurricular	
	school activities	
Ċ.	Using electronic devices for entertainment	

3. After joining the 'PlayBag' project, averagely how much time does your child spend with the person on the table below in a week when your child engages in "free play"? (Please indicate ✓ on each of the following cases)

		Often 6 hours or more (4)	Occasional 3-5 hours (3)	Seldom 1-2 hours (2)	Never 0 hours (1)	Not applicable (0)
A.	The child has free play by herself/ himself.					
В.	The child has free play with the father.					
C.	The child has free play with the mother.					
D.	The child has free play with both the parent.					
E.	The child has free play with other children who live together					
F.	The child has free play with other children who does not live					
	together.					
G.	Play with family members or friends other than the above mentioned (excluding domestic helper).					

4. After joining the 'Playbag' project, which of the following elements do you think is included in your child's free play? (Please indicate ✓ on each of the following cases)

	Plenty (5)	A lot (4)	half-half (3)	A little (2)	None (1)
A. Creativity					
B. Cooperation					

C. Communication			
D. Thinking			
E. Intelligence			
F. Physical fitness			
G. Imagination			

5. After joining the 'Playbag' Project, how much do you think the following factors will affect your child when he / she engages in "free play"? (Please indicate ✓ on each of the following cases)

Γ		Huge (5)	A lot (4)	half-half (3)	A little (2)	None (1)
A.	The amount of his/her homework					
В.	His/her rest schedule.					
C.	Child refuses to play with parent.					
D.	Limited indoor space					
E.	Safety of the play process (Including: injury or infection)					
F.	Family members' rest schedule					
G.	Parents' long working hours					
H.	Parents' unstable working hours					
I.	Parents don't know how to play with the child					
J.	Parents fail to engage in the play process with their child					
K.	Parents have difficulty balancing between the responsibilities of being a playmate or to discipline.					

Part Five - Parents' Physical and Mental Health

1. After joining this 'Playbag' project, how do you compare the status of each of the following items in the past few weeks with usual (Please 'to indicate your answer)

		Better than Usual (0)	Same as Usual (1)	Less than Usual (2)	Much Less than Usual (3)
A.	Been able to concentrate on what you're doing?				
В.	Lost much sleep over worry?				
C.	Felt you were playing a useful part in things?				
D.	Felt capable of making decisions about things?				
E.	Felt constantly under strain?				
F.	Felt you couldn't overcome your difficulties?				
G.	Been able to enjoy your normal day-to-day activities?				
H.	Been able to face up to your problems?				
I.	Been feeling unhappy and depressed?				
J.	Been losing confidence in yourself?				
K.	Been thinking of yourself as a worthless person?				
L.	Been feeling reasonably happy, all things considered				

Part Six – Parent Child Relationship

1. After joining this 'PlayBag' project, please select the most appropriate description of the relationship between you and your child in each statement below. (Please to indicate your answer)

		Definitely Applies (5)	Applies Somewhat (4)	Neutral (3)	Not Really (2)	Definitely Does Not Apply (1)
A.	I share an affectionate, warm relationship with my child.					
В.	My child and I always seem to be struggling with each other.					
C.	If upset, my child will seek comfort from me.					
D.	My child is uncomfortable with physical affection or touch from me.					
E.	My child values his/her relationship with me.					
F.	When I praise my child, he/she beams with pride.					
G.	My child spontaneously shares information about himself/herself.					
Н.	My child easily becomes angry at me.					
I.	It is easy to be in tune with what my child is feeling.					
J.	My child remains angry or is resistant after being disciplined.					
К.	Dealing with my child drains my energy.					
L.	When my child is in a bad mood, I know we're in for a long and difficult day.					
M.	My child's feelings toward me can be unpredictable or can change suddenly.					
N.	My child is sneaky.					
О.	My child openly shares his/her feelings and experiences with me.					

End of Questionnaire Thanks for Your Valuable Time

Appendix 4

幼稚園學生自由遊戲實踐研究計劃」

焦點小組訪問問題

	<u>組別一</u>	組別二
	低參與度的家長	積極參與計劃的家長
訪問問題	- 甚少或沒有使用計劃中的遊戲	- 經常使用計劃中的遊戲袋及
前回回题	袋及日記	日記 / - 經常使用計劃中的遊
		戲袋及日記·並有出席家長講
		座
對「自由遊戲」的想法		
1.1 你認為「自由遊戲」是甚麼?	$\overline{\mathbf{V}}$	$\overline{\mathbf{V}}$
1.2 參與這個計劃後,你認為「自由遊戲」又是什麼呢? 當中你認為		
有什麼改變了你的想法?		
兒童的反應 (使用「遊戲百寶袋」)		
2.1 使用計劃中提供的「遊戲百寶袋」物資進行自由遊戲,孩子與以往		
的遊戲反應有何不同?		
2.2 配合「遊戲百寶袋」及「遊戲日記」中的回應技巧進行自由遊戲,		
你觀察到孩子會有甚麼反應?		
兒童與照顧者的遊戲互動		
3. 孩子比較喜愛與甚麼人進行「自由遊戲」?當中原因是甚麼?	Ø	\checkmark
(*Remark: 如 組別一 並沒有自由遊戲的經驗,可照以日常遊戲提問。)	(*Remark)	

進行自由遊戲的困難、好處、如何舒緩		
4. 在日常生活中進行「自由遊戲」時,會有哪些困難或令你擔憂、困惑的	\checkmark	☑
事情? (Remark: 可按家長的回應,進深問日常生活在那裡進行遊戲)		
5.1 你認為「自由遊戲」有那些好處?	$\overline{\mathbf{A}}$	Ø
5.2 你認為日常生活中能進行「自由遊戲」, 會為你、孩子及家人帶來甚	$\overline{\mathbf{A}}$	Ø
麼好處?		
6. 你認為「自由遊戲」會為親子的關係和溝通方式帶來影響嗎?為甚麼?	\checkmark	Ø
(*Remark:進深問 遊戲日記能在此部分帶來幫助嗎? 或家長講座有帶		(*Remark)
來幫助嗎?)		
7. 總括來說,你認為在日常生活中進行「自由遊戲」,有那些因素是需要	\checkmark	\square
配合?		
就本計劃上的建議		
8.1 智樂兒童遊樂協會(Playright) 推行這個計劃中,那些部分對你有幫		Ø
助?那些內容你比較欣賞?你會有什麼意見給予協會去改善這個計劃?		
8.2 對於智樂兒童遊樂協會(Playright) 推行這個計劃,你有什麼意見給	\checkmark	
予協會去改善這個計劃?		
就政策/服務配奪上的建議		
9. 你認為政府、 民間機構如何可以令家庭及學校及早認識「自由遊戲」		V
的重要性?		

Appendix 5

Practice Research on Free Play – Parents Questionnaire (Part B)

Part One- Parental Consent

Hi, thank you very much for participating in **Practice Research on Free Play** by the collaboration of Playright, Dr. Wallace TSANG (College of Professional and Continuing Education, The Hong Kong Polytechnic University) together with Dr. Johnson CHEUNG (Department of Social Work and Social Administration, The University of Hong Kong). This research project has been approved by The Hong Kong Polytechnic University Human Subjects Ethics Committee. This participant consent form is to explain the relevant information of this research to you.

The purpose of this research is to understand free play activities engaged by the parents and their children. The "Free Play" defined in this research refers to the activities that children play in their spare time. This activity should be intrinsically motivated, and there is no specific structure or rules in the play process; children can make decision freely, and it is not an activity to achieve a certain goal. It does NOT include skills or academic interest courses and school extracurricular activities, watching TV, watching videos online, playing video games, electronic games such as Nintendo or mobile phones etc.

The target research participants are those <u>parents</u> who participated in the projects 'Playright Home Play Box' and 'Medical Play Experiential Box' organized by Playright anytime from April 2020 to now.

The research period is from late of May to mid of June 2021. Parents are invited to complete an on-line questionnaire. It takes about 20-25 minutes to fill out the form. If there is more than one child in the family engaging in free-play activities, parents may answer the questionnaire based on one child who is under twelve years old.

The collected information is for research purposes only. Personal information will be kept strictly confidential, and all information will be destroyed within one year after the end of the research. If you agree to participate in the research in this research participant consent form, you can still withdraw from this research at any time without any reason.

If you have any enquiries or questions in the future, please contact the researcher Dr. Wallace TSANG (3746-0326) or Mr. Daniel CHAN (Playright) (2898-2922).

1. I understand the above content and agree to participate in this research. □Agree (Please ✓ to agree)

Part Two - Basic Information

(Please \checkmark to indicate your answer)

1.	Parent's gender : DMale DFemale
2.	Parent's Education level : Drimary or below Dunior high school DSenior High school Tertiary / University level or above
3.	Average monthly household income (HK\$) (excluding government financial assistance)
4.	\Box \$10,000 or below \Box \$10,001-\$20,000 \Box \$20,001-\$30,000 \Box \$30,001-\$40,000 \Box \$40,001-\$50,000 \Box \$50,001 or above Type of housing:
	$\Box Private \Box Public housing estates \Box Home Ownership Scheme Flats (HOS) \Box Subdivided room \Box Village house \Box Others$
5.	Actual area of residence (square feet) :
	$\square 200 \text{ or less } \square 201-400 \square 401-600 \square 601-800 \square 801 \text{ or above}$
6.	Parent's age $\Box 20$ and below $\Box 21-25$ $\Box 26-30$ $\Box 31-35$ $\Box 36-40$ $\Box 41-45$ $\Box 46-50$ $\Box 51$ and above
7.	Employment status of parent : □Full time □Part-time □ Unemployed □Homemaker □Others
	How old is the child : $\Box 2$ $\Box 3$ $\Box 4$ $\Box 5$ $\Box 6$ $\Box 7$ $\Box 8$ $\Box 9$ $\Box 10$ $\Box 11$ $\Box 12$
9.	The child's current grade : □Nursery □K1 □K2 □K3 □Primary 1/Grade 1 □Primary 2/Grade 2
	Primary 3/Grade 3 Primary 4/Grade 4 Primary 5/ Grade 5 Primary 6/Grade 6
10.	The child's gender :
11.	The child's race : Chinese Non-Chinese · Please specify ()
12.	. Total number of family members living in the same household (including domestic helpers):
	$\Box 2 \qquad \Box 3 \qquad \Box 4 \qquad \Box 5 \qquad \Box 6 \qquad \Box 7 \text{ or above}$

Part Three - Parents' Attitudes to Children's Playing

1. Please select your level of agreement with each of the following statements in the table below. (Please to indicate your answer)

	Strongly Agree (4)	Somewhat Agree (3)	Somewhat Disagree (2)	Strongly Disagree (1)	Don't Know (0)
1. Children should be given a lot of freedom to decide how they want to play.					
2. Children should be allowed to take their toys apart.					
3. Children should be able to decide when to share their toys and when not to.					
4. Children should be allowed to play with whomever they please.					
5. Children should be allowed to play anywhere in the house as long as their health and safety are not endangered.					
6. Children should be allowed to watch TV whenever they want to.					
7. A child using a toy in the wrong way should be corrected.					
8. There are certain rooms that should be off limits to children when they play.					
9. Children should not be allowed to leave their toys around the house.					
10. A lot of discipline is essential in raising children.					
11. Children should play with toys the way they are meant to be used.					
12. It is important that children follow the rules of the game when they play.					
13. School-age children should be allowed to play without supervision.					
14. Physical play should be allowed only outdoors or in designated areas.					
15. It is important to watch out for the safety of my child when he or she is					
playing.					
16. Children can easily get hurt when they're playing.					
17. It is good for children to play make-believe.					

18. Parents should be worried if their child has an imaginary playmate.			
19. It is all right for children to get dirty once in a while.			
20. Children should be allowed to make a mess just for the fun of it.			
21. Boys should be discouraged form playing with girls' toys and games.			
22. Girls should be discouraged from playing with boys' toys and games.			
 Boys should be encouraged to only participate in boys' kinds of play activities. 			
24. Girls should be encouraged to only participate in girls' kinds of play activities.			
25. Children can learn a lot by being in organized activities.			
26. Organized after-school activities are an important part of my child's education.			
27. It is important for children to be involved in activities when they are not in school.			
28. It is important that children learn to use their time wisely.			
29. I like my child to be kept busy with lots of activities when he/she is not in school.			
30. It is important for children to have free time to do whatever they wish.			
31. Parents should take an active role in setting up activities for their child when they are not in school.			
32. Children should have say in what they do after school hours.			
33. Children usually know best what out-of-school activities they will get something out of.			
34. Children should be allowed to decide for themselves if they want to be in an organized activity after school hours.			

35. Children should have more say in deciding what activities the community			
should arrange for them.			
36. If children are unhappy doing an out-of-school activity, they should be			
allowed to quit.			

Part Four – Free Play Situation

1. How much time on average does your child spend in the following games or activities each week? (Please indicate in integer hours)

		Hours (integer)
A.	Free play, such as imaginative, physical, creative, and	
	construction play	
В.	Skills or academic-related interest classes and extracurricular	
	school activities	
Ċ.	Using electronic devices for entertainment	

2. When your child engages in "free play", averagely how much time do they spend with the person on the table below in a week? (Please indicate ✓ on each of the following cases)

		Often 6 hours or more (4)	Occasional 3-5 hours (3)	Seldom 1-2 hours (2)	Never 0 hours (1)	Not applicable (0)
A.	The child has free play by herself/ himself.					
В.	The child has free play with the father.					
C.	The child has free play with the mother.					
D.	The child has free play with both the parent.					
E.	The child has free play with other children who live together					
F.	The child has free play with other children who does not live					
	together.					
G.	Play with family members or friends other than the above mentioned (excluding domestic helper).					

3. When your child engages in "free play", how much do you think the following factors will affect him/her? (Please indicate ✓ on each of the following cases)

		Huge (5)	A lot (4)	half-half (3)	A little (2)	None (1)
A.	The amount of his/her homework					
В.	His/her rest schedule.					
C.	Child refuses to play with parent.					
D.	Limited indoor space					
E.	Safety of the play process (Including: injury or infection)					
F.	Family members' rest schedule					
G.	Parents' long working hours					
H.	Parents' unstable working hours					
I.	Parents don't know how to play with the child					
J.	Parents fail to engage in the play process with their child					
K.	Parents have difficulty balancing between the responsibilities of being a playmate or to discipline.					

Part Five – Parent Child Relationship

1. Please select the most appropriate description of the relationship between you and your child in each statement below. (Please to indicate your answer)

		Definitely Applies (5)	Applies Somewhat (4)	Neutral (3)	Not Really (2)	Definitely Does Not Apply (1)
A.	I share an affectionate, warm relationship with my child.					
В.	My child and I always seem to be struggling with each other.					
C.	If upset, my child will seek comfort from me.					
D.	My child is uncomfortable with physical affection or touch from me.					
E.	My child values his/her relationship with me.					
F.	When I praise my child, he/she beams with pride.					
G.	My child spontaneously shares information about himself/herself.					
Н.	My child easily becomes angry at me.					
I.	It is easy to be in tune with what my child is feeling.					
J.	My child remains angry or is resistant after being disciplined.					
K.	Dealing with my child drains my energy.					
L.	When my child is in a bad mood, I know we're in for a long and difficult day.					
M.	My child's feelings toward me can be unpredictable or can change suddenly.					
N.	My child is sneaky.					
О.	My child openly shares his/her feelings and experiences with me.					

End of Questionnaire Thanks for Your Valuable Time