Kids in Taiwan:

National Longitudinal Study of Child Development and Care

Domains, reliability and validity of M3-M24 questionnaires

The ***Kids in Taiwan: National Longitudinal Study of Child Development and Care*** project uses Parent Questionnaire, Relative&Friend Questionnaire, and Educarer Questionnaire to collect developmental and environmental information of children from 3 to 24 months old in Taiwan. The final versions of the questionnaires were established after expert evaluation, cognitive interviewing, and several pilot studies. This document provides the result of the reliability and validity analysis of the Parent Questionnaire, the Relative&Friend Questionnaire, and the Educarer Questionnaire.

1. Parent Questionnaire

The Parent Questionnaire includes information on the parents, child cognitive development, child language development, child social and emotional development, child physical motor development, family environment and experience, childcare survey, and child health information. The result of the reliability and validity analysis of the Parent Questionnaire is based on the pilot study conducted in 2015.

The pilot study was conducted in New Taipei City in Taiwan. The districts of New Taipei City were divided into three strata based on the level of urbanization（Luo,1992）[1]. The districts in each stratum are listed in table 1-1. Children in the daycare centers or cared for by the registered nannies within each stratum were purposively sampled. Parents of a total of 183 children 24 months old or younger (age and gender distribution in table 1-2) completed the Parent Questionnaire.

Table 1-1 New Taipei City districts in urbanization strata

1st stratum	2nd stratum	3rd stratum
Banqiao, Sanchong, Zhonghe, Yonghe, Xinzhuang, Luzhou	Xindian, Tamsui, Xizhi, Tucheng, Shenkeng	Shulin, Yingge, Sanxia, Wugu, Taishan, Linkou, Sanzhi, Bali、Ruifang, Shimen, Gongliao, Jinshan, Wanli, Shiding, Pinglin, Pingxi, Shuangxi, Wulai

Table 1-2 Age and gender distribution of the children

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[1] Luo (1992). *A study on the equitable regional development in Taiwan* (unpublished dissertation). Taipei, Chinese Culture University.

Age (month)	Gender	
	boy	girl
2	1	0
3	4	4
4	13	8
5	4	3
6	9	9
7	4	5
8	6	1
9	3	5
10	3	3
11	8	3
12	1	3
13	2	3
14	5	2
15	2	1
16	3	1
17	4	7
18	1	4
19	5	5
20	2	4
21	1	4
22	6	7
23	7	2
24	2	3
total	96	87

Table 2 lists the scale/domain, reliability and validity, and variables of the child development questions and the family domain questions in the Parent Questionnaire. Detailed information regarding the development of the questionnaires can be found in the following publications:

Wang, S. M., Lee, J. R., & Chang, C. J. (2015). The Behavioral Rating Inventory of Cognitive Development for 2-5 Year Olds: A Parent-Completed Assessment. *Psychological Testing*, *62*(4), 279-302.

Liu, H. M., Chen, P. H., Huang, S. C., Chen, Y. W., & Chang, C. J. (2018). Inventory of Language Development for 0-6 Years Old Children: A Parental Questionnaire. *Psychological Testing*,

65(1), 95-123.

Po, Y. H., Chen, C. L., Chang, C. J., Chen, P. H., Chen, H. C., Chung, C. Y., Wang, C. C., Fu, R. H., & Chou, L. T. (2016). Preliminary Studies of the Developmental Motor Assessment Scale for Preschool Children: Development and Validation. *Taiwan Journal of Physical Medicine and Rehabilitation, 44*(2), 71-80.

Wang, C. C., Chang, C. J., Chen, P. H., Liu, W. Y., Chen, C. L., Tsai, C. C., Fu, R. H., Chou, L. T., & Chu, S. M. (2016). Developing and Validating a Screening Scale for Assessing Preschool Children's Motor Development: A Preliminary Study. *Taiwan Journal of Physical Medicine and Rehabilitation, 43*(4), 239-25.

Table 2：Scale/Domain, Reliability and Validity, and Variables of the Parent Questionnaire

Area	Scale/Domain	Reliability and Validity	Variables
Cognitive development	**1. Memory** **2. Attention/ Executive function**	**Internal consistency:** α=.95 **Criterion validity:** Correlation between total score and CDIITa cognitive development, r=.41 Correlation between total score and CDIIT language comprehension, r=.72 Correlation between total score and CDIIT language expression, r=.78	**1. Memory** cogA01 The child knows that by touching a toy, he/she can make a sound with it or move it. cogA02 The child identifies his/her father/mother among a crowd of people. cogA03 The child knows the association between visual and auditory information of a toy. For example, when you imitate a barking dog, the child can look at or point to a dog or an image of a dog. cogA04 The child repeats an action because he/she did it and found it interesting. For example, when the child suddenly realizes that he/she can make an interesting sound by sucking on a

				pacifier, he/she then repeats this action.
				cogA05 After showing the child an attractive toy and then hiding the toy under a cover, the child removes the cover and finds the toy.
				cogA06 After hiding a toy in front of the child, the child looks for that toy in the last place where he/she saw that toy.
				cogA07 When a toy is out of sight, the child looks for it in several possible places.
				cogA08 The child makes pretend play, for example, he/she pretends to drink water from a cup or to talk to someone on a cell phone / phone.
				cogA09 The child imitates an adult's behavior after a certain period of time delay, such as reading, doodling on a piece of paper, or trying to turn on the TV with a remote control.
				cogA10 The child understands some gestures commonly used by adults, such as "waving", which means "goodbye".
				cogC01 The child plays role-playing games. For

				example, the child pretends to cook, or pretends that he/she is a doctor.
				cogC02 Without any help, the child speaks out his/her age accurately on his/her own.
				cogC03 When the child is asked about his/her gender, the child answers correctly.
				cogC04 The child speaks out correctly two different color names.
				cogC05 The child knows what a round shape is.
				cogC06 The child speaks out correctly the name of his/her mother or father.
				cogC07 The child knows which book(s) he/she has read or someone has read to him/her before.
				2. Attention/Executive function
				cogA11 In order to reach something (e.g., a toy), the child pushes over or away obstacles in between, or tries to get it by using another means.
				cogA12 The child gazes at things or someone moving slowly.
				cogA13 When the child is playing with something (e.g., a toy), he/she

			stops playing if you tell him/her to do something else.
			cogC08 When being asked, the child puts the toy or used object back to where it is usually placed.
			cogC09 In a public place, when you ask the child to lower his/her voice, he/she follows the instruction immediately and stays that way for at least several minutes.
			cogC10 At home, when you say "no", the child stops running or jumping immediately and stays that way for at least several minutes.
Language development	**1. Prelinguistic communication 2. Comprehension 3.Expression 4. Emergent literacy**	**Internal consistency:** α=.94 **Criterion validity:** Correlation between total score and CDIIT language comprehension, r=.73*** Correlation between total score and CDIIT language Expression, r=.82*** Correlation between total score and CDIIT language development, r=.79***	**1. Prelinguistic communication** lanA01 The child can utter sounds such as "ba", "ma", or "da". lanA02 The child can imitate a sound uttered by an adult or the mouth shape of the adult when uttering that sound. lanA03 The child can point at an object that he/she wants to get. lanA04 The child can express his/her needs by nodding or shaking his/her head. **1.Comprehension**

				lanA05 The child can identify different sounds from his/her living environment (e.g., bird chirping or the sound of a car)
				lanC01 The child can understand a simple oral instruction and follow that instruction (e.g., "Clap").
				lanC02 The child can understand two or more oral instructions and follow them in the right order (e.g., "Clap first and then touch the head").
				2.Expression
				lanA06 The child can speak out the names of objects in his/her living environment (e.g., "a ball" or "a cup").
				lanC03 The child can speak out words that are used to describe a person, an event, or a thing in his/her daily life (e.g., "cold water" or "beautiful aunt").
				lanC04 The child can answer questions like "what is this?"(e.g., When the child is asked "what is this stuff?", he/she can answer "a banana"; when the child is asked

				"what is this place?", he/she can answer "a school").
			lanC05	When the child talks to someone he/she is familiar with (e.g., his/her parent or teacher), he/she can initiate a topic.
			lanC06	When the child can't understand what a person says or can't hear him/her clearly, the child can actively ask this person to clarify (e.g., "What did you just say?" or "Can you say that again?").

3.Emergent literacy

			lanC07	The child knows the meanings of signs, images, and symbols which are commonly seen in his/her daily life (e.g., traffic lights or the sign of a convenient store).
			lanC08	When the child turns over a page of a book, the direction of the book is correct (e.g., the book is not placed upside down).
			lanC09	The child knows that the title and the name of the author/illustrator of a picture book are on the cover of that book.

Social and emotional development	1. **Temperament** including： Extraversion temperament, Effortful control temperament, Negative emotionality temperament **2.Secure attachment** **3.Avoidant attachment** **4.Ambivalent attachment** **5.Emotional competence** including： Emotional awareness, Emotional expression, Emotional understanding **6.Social competence** including： Assertiveness, Sociability, Compliance **7. Shyness**	**Internal consistency:** Extraversion temperament, $\alpha = .60$ Effortful control temperament, $\alpha = .85$ Negative emotionality temperament, $\alpha = .68$ Secure attachment, $\alpha = .72$ Avoidant attachment, $\alpha = .47$ Ambivalent attachment, $\alpha = .78$ Emotional competence, $\alpha = .89$ Social competence, $\alpha = .93$	<u>**1. Temperament**</u> <u>**Extraversion temperament**</u> socA01 The child easily notices objects around him/her, including objects that are not of bright colors. socA02 When the child has a chance to choose among different activities, he/she makes a quick decision and does the activity right away. socC04　When a new activity is introduced to the child, he/she participates in the activity immediately. socC05　In a gathering among familiar people, the child likes to play with various individuals. <u>**Effortful control temperament**</u> socA03 After being reminded by an adult, the child waits patiently for what he/she wants. socA04 When someone tells the child to stop a specific behavior, he/she stops that behavior immediately. socC16　After being reminded by an adult, the child pays attention to his/her personal safety or adapts his/her behavior to accommodate the

				surrounding area (e.g., when the child is brought to a store selling breakable goods, he/she walks with extra care).
	8. Shame			
			socC17	The child stays involved or engaged with his/her favorite toys or activities for a long period of time.
			Negative emotionality temperament	
			socA05	he child cries when he/she is not able to get my attention (e.g., when he/she expects me to keep him/her company, or to respond to his/her question).
			socC01	The child gets angry if I don't respond to him/her when he/she wants my hug or to play with me.
			socC06	The child gets angry or loses his/her temper easily.
			2.Secure attachment	
			socC02	The child turns around to look for me or locates my whereabouts when I am not near him/her.
			socC03	When I tell the child "it's ok", he/she approaches the objects which originally scare

				him/her.
				socC09 When I come home, the child shows his/her joy immediately by smiling or greeting me.
				socC10 When I am in a bad mood, the child becomes quiet, comforts me, or asks me why I feel sad.
				3. Avoidant attachment
				socA06 In a new surrounding, the child does not cry even when I am not around as long as there is someone he/she knows by his/her side.
				socA05 When the child sees me, he/she turns his/her head away or looks away from me.
				socA16 When I take the child to a place unfamiliar to him/her, he/she looks around or plays on his/her own without paying attention to me.
				4. Ambivalent attachment
				socA07 When meeting strangers, the child appears nervous even I am right beside him/her.
				socA17 The child is very clingy, he/she rarely approaches nearby toys or other children, even when I am accompanying him/her.

				socA18 When I take the child to a place unfamiliar to him/her, he/she holds me tightly or follows me closely.

5.Emotional competence

Emotional awareness

socC11   The child becomes quiet when he/she notices my angry expression.

socC12   When the child sees someone trips or falls, he/she knows that person is in pain.

Emotional expression

socA08 When the child receives something he/she likes, he/she shows happy or excited expressions.

socA09 When the child's favorite object (e.g., a pacifier or toy) is taken away, he/she expresses his/her anger or protest through crying or physical gestures.

Emotional understanding

socA10 The child appears fearful and anxious (e.g., crying or hiding behind his/her parent) when he/she sees a doctor/nurse with a needle preparing for his/her immunization injection.

socC13   The child checks my

				facial expression to decide whether he/she should approach an unfamiliar toy or person.
				socC18 While encountering strangers or new environment, the child uses my facial expression as a cue to decide how he/she should behave.
				6. Social competence **Assertiveness**
				socA11 The child tries multiple ways to make me help him/her get what he/she wants (e.g., by making noises, dragging me to get an object, or communicating using simple words).
				socA12 The child imitates simple actions that adults do in the daily life (e.g., imitating he/she is making a phone call, or imitating he/she is driving a car).
				socC14 The child shows his/her interest or preference to others using his/her voices, words, gestures, or movements (e.g., he/she points to a car and looks at his/her mother with a smile).
				socC19 When the child

			participates in an activity or discussion, he/she expresses his/her own views or opinions without being prompted.
			socC20 The child tells others his/her feelings without being prompted.
			Sociability
			socA13 The child plays house or other pretend games with adults or peers (e.g., pretending to be a mother who is cooking, or, pretending to be a patient).
			socC15 The child likes to share his/her toys with other adults or children.
			socC21 The child shares his/her things (e.g., toys or stationery) with other children.
			Compliance
			socA14 When I ask the child to give me what is in his/her hand, he/she would do as I told him/her.
			socC22 When the child is being requested to stop playing a specific game, he/she obeys and stops playing the game.
			7.Shyness
			socC07 The child gets shy when meeting

			unfamiliar adults. **8.Shame** socC08 The child feels ashamed when he/she does something wrong.

Physical motor development	**1. Gross motor** including︰ Stability & locomotion, Body coordination
	 2. Fine motor including︰ Grasp & manipulation, Visual motor integration
		Internal consistency: α=.95
		
		 Criterion validity: Correlation between domain scores and PDMSII[b] scores
		 Gross motor, r=.92**
		   Stability & locomotion, r=.92**
		   Body coordination, r=.91**
		 Fine motor, r=.92**
		   Grasp & manipulation, r=.92**
		   Visual motor integration, r=.89**
			1.Gross motor
			 Stability & locomotion
			 bodyAg02 The child can raise his/her head with forearm support in a prone position.
			 bodyAg11 The child can roll by themselves (e.g., from supine to a prone position or from prone to a supine position).
			 bodyAg05 The child can lift his/her chest with hands support in a prone position.
			 bodyAg06 The child can sit steadily without support.
			 bodyAg07 The child can crawl forward.
			 bodyAg08 The child can stand steadily without support independently.
			 bodyAg09 The child can walk independently without support.
			 bodyCg02 Can run steadily for a distance without falling.
			 bodyCg04 Can jump in place with two legs

				simultaneously.
				bodyCg06 Can climb up stairs without support.
				bodyCg08 Can walk down stairs without support.
				Body coordination
				bodyAg01 The child can grab his/her toes in a supine position.
				bodyAg03 The child can kick his/her feet in a supine position.
				bodyAg04 The child can raise his/her head when being pulled up from a supine position to a sitting position.
				bodyAg12 The child can roll a ball with others face-to-face in a sitting position.
				bodyAg10 The child can stand up from a sitting position without support.
				bodyCg01 Can throw a ball overarm using one arm.
				bodyCg03 Can move his/her body with rhythm when standing.
				bodyCg05 Can slide down a slide in a sitting position on his/her own.
				bodyCg07 Can kick a ball (Can kick a ball away from him/her in a standing

				position).
				2.Fine motor
				Grasp & manipulation
				bodyAf02 The child can grasp an object and then release it from his/her hand.
				bodyAf03 The child can extend his/her forearm to reach and grasp a small object (e.g., a small bell) in front of him/her.
				bodyAf08 The child can grasp a small piece of food (e.g., a raisin or a tiny cookie) using whole palm.
				bodyAf05 The child can hold a small object in each hand simultaneously.
				bodyAf07 The child can pinch a small piece of food (e.g., a raisin or a tiny cookie) using the pad of his/her thumb and index finger.
				bodyAf10 The child can pinch a thin and long object (e.g., a piece of thread or hair) using the tips of his/her thumb and index finger.
				bodyAf11 The child can turn thick cardboard pages of a

				storybook page by page.
				bodyAf12 The child can hold a cup to drink.
				bodyCf04 Can eat with a spoon.
				bodyAf14 The child can take off his/her socks.
				bodyCf05 Can turn thin pages of a storybook page by page.
				bodyAf16 The child can eat with a fork.
				bodyCf01 Can take off a buttonless shirt (e.g., a t-shirt).
				bodyCf02 Can unbutton small buttons on his/her clothes.
				<u>Visual motor integration</u>
				bodyAf01 When lying in a supine position, the child can track moving people or objects with his/her eyes.
				bodyAf04 The child can grasp and shake a rattle with his/her hand.
				bodyAf06 The child can transfer an object from one hand to another hand.
				bodyAf09 The child can hit something with a stick or other objects (e.g., beating a drum).
				bodyAf13 The child can

			scribble with a pen.
			bodyCf03 Can draw a vertical line.
			bodyCf06 Can stack four or more cubic objects (e.g., building blocks or mahjong tiles).
			bodyAf15 The child can gesture the number "1" using his/her index finger.
			bodyCf07 Can gesture the number "2" using his/her index finger and middle finger.
			bodyCf08 Can draw a circle.
Family	**Family environment**	**Internal consistency:** Environmental diversity, α=.70 Learning materials, α=.76 Learning stimulation, α=.79 Parental responsiveness, α=.52 Conditional discipline, α=.81	**Environmental diversity** famC01 I take the child to visit families and friends or invite families and friends to visit our home. famC02 I take the child to visit or play outside (e.g., parks, markets, or public squares). fameviC01 I take the child to the bookstore or the library. famC08 I participate in activities suitable for children with the child (e.g. a parent-child joint activity). **Learning materials** famC03 I let the child play with objects which he/she can press down, grab, push, or pull (e.g., a

					ball or a baby walker).
				famC04	I let the child play with plush pillows, stuffed animals, or playset toys.
				famC05	I let the child play with objects which help him/her develop hand-eye coordination (e.g., a cup stacking set, a puzzle, or a set of soft building blocks).
				famC06	I let the child play with objects which help him/her learn colors, shapes, sizes, or numbers.
				famC07	I let the child play with objects which require fine motor skills (e.g., building blocks, play dough, clay, a string of beads, painting tools, snow-flake puzzles, or puzzles).
				Learning stimulation	
				famC09	I teach the child names of various objects.
				famC10	I teach the child to say "please", "thank you", and "sorry".
				famC11	I teach the child learn spatial relationships (e.g., up and down, left and right, or front and back).
				famC12	I help the child learn numbers.

			famC13 I help the child learn Chinese characters.
			Parental responsiveness
			famC14 Whenever the child makes a sound or speaks aloud, I respond with words.
			famC15 I kiss or hug the child.
			famC16 I talk to the child even when I am doing chores or work.
			Conditional discipline[c]
			famC17 I scold the child if he/she is not obedient.
			famC18 When necessary, I discipline the child by limiting his/her actions (e.g., making him/her stand still or forbidding him/her to play with toys).
			famC19 When the child is out of control, I hit him/her.
	Chinese parenting	**Internal consistency:** Discipline, α=.70 Teaching, α=.72 Achievement expectation, α=.73 Shame, α=.74	**Discipline** famedu01 My strict disciplinary practice is something that the child will be thankful for in the future. famedu02 By scolding or criticizing the child, I am helping him/her improve. famedu03 The child should be punished by me if he/she is not obedient. **Teaching**

			famedu04 The child should greet me without prompting when seeing me.
			famedu05 When I talk to the child, the child should look at me without being distracted.
			Achievement expectation
			famedu06 I should demand the child to become better and better, to help him/her improve.
			famedu07 I don't have a sense of achievement unless the child's learning performance is outstanding.
			Shame
			famedu08 I should tell the child that he/she should feel ashamed when behaving inappropriately.
			famedu09 I should feel ashamed if the child is not on his/her best behavior when we go out.
	Life skill training	**Internal consistency:** α=.75	famedu10 I should adopt a firm approach in teaching the child to stop using his/her pacifier.
			famedu11 I should adopt a firm approach in making sure the child is fully potty trained.
	Parental involvement	**Internal consistency:** Father involvement, α=.92 Mother involvement,	**Father involvement** atherinvo01 The child's father takes care of the

		α=.93	child's basic needs such as food and clothing.
			fatherinvo02 The child's father teaches the child routine rules.
			fatherinvo03 The child's father helps the child with his/her learning activities.
			fatherinvo04 The child's father cares about and responds positively to the child.
			fatherinvo05 The child's father plays with the child.
			Mother involvement
			motherinvo01 The child's mother takes care of the child's basic needs such as food and clothing.
			motherinvo02 The child's mother teaches the child routine rules.
			motherinvo03 The child's mother helps the child with his/her learning activities.
			motherinvo04 The child's mother cares about and responds positively to the child.
			motherinvo05 The child's mother plays with the child.

Note：

a：Wang, T. M. (2004). Manual of the Revised Comprehensive Developmental Inventory for Infants and Toddlers. Taipei, National Taiwan Normal University, Department of Special Education.

b：Folio, M.K., & Fewell, R.(2000). *Peabody Developmental Motor Scales： Examiner's Manual*. 2nd ed. Austin, Texas： PRO-ED.

c：When calculate the total score of family environment, the three questions of conditional discipline needs to be treated as the reversed items.

* ：p<0.05　　** ：p<0.01　　*** ：p<0.001

2. Relative & Friend Questionnaire

The Relative & Friend Questionnaire includes the information on the primary caregiver (other than the parents) and the family domain questions. Please refer to the results of the Parent Questionnaire（Table 2）for the scale/domain, reliability and validity, and variables of the family domain questions in the Relative & Friend Questionnaire.

3. Educarer Questionnaire[2]

The result of the reliability and validity analysis of the Educarer Questionnaire is based on a child learning and educarer training project[3] by the Ministry of Education in 2016. A total number of 192 participants (73 from northern Taiwan, 50 from central Taiwan, 57 from southern Taiwan, 12 from eastern Taiwan) completed the questionnaires. Table 3 lists the scale/domain, reliability and validity, and variables of the child development questions and the family domain questions in the Educarer Questionnaire.

Table 3：Scale/Domain,Reliability and Validity, and Variables of the Educarer Questionnaire

Scale/Domain	Reliability and Validity	Variables	
Learning environment and quality	**Internal consistency:** α=.88 **Criterion validity:** Correlation between scores	act01	Reading stories to children (without looking at books)
		act02	Providing time and props for dramatic play (e.g., housekeeping props, dress up clothes, role play, toy figures)

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[2]The Educarer Questionnaire is used to collect child care information from children's educarers at 1-6 year-old survey. The educarer questionnaire is not collected at 3 months old and 6 months old surveys.

[3]Liaw, F. R., Shing, M. L., & Chang, J. W. (2016). The Child Learning and Educarer Training Project. Taipei, the Ministry of Education.

	and ECERS-Rᵃ (20 iterms）scores, r=.30***	act04	Reading picture books with children
		act05	Providing activities on counting, math/ number, color and shape
		act06	Providing activities on sequencing, sorting, comparing, and measuring.
		act13	Providing gross motor activities (e.g., ball play, running)
		act14	Providing fine-motor activities (e.g., cutting and pasting, folding papers, building small blocks, stringing beads, or molding clay)
		act15	Checking and taking actions to ensure the safety of the equipment and facilities before the onset of activities.
		act16	Providing opportunities for children to choose his/her own play activities.
		act17	Introducing logical relationships (e.g., cause and effect, same/different, sorting), using concrete experiences, and letting children explain their reasoning.
		env03	Providing various types of math/numeracy materials (e.g., materials for numbers, shapes, classification, matching, comparing; can be books, nursery rhymes, or teacher-made materials).
		env04	Providing various types of nature materials (e.g., insects, stones, shells, leaves, lifelike toy animals, plants, pets, fish tanks, etc.), and science equipment or materials (e.g., magnifiers, magnets, measuring cups, posters/pictures of animals and plants, etc.)
		env05	Providing various types of small building toys or materials (e.g., interlocking blocks, such as snowflakes, Legos, shape blocks, and accessories).
		env06	Providing a variety of dramatic play

			materials and space (e.g., hand puppets, cloth, dress-up clothes, shoes, props, toy accessories, playset toys, and play space).
		env07	Providing various types of art materials (e.g., crayons, paint brushes, color pens, paints, tools for cutting and pasting, carpentry, 3-dimensional art materials, various types of paper, bottles and cans, art books/pictures, etc.)
		env08	Providing various types of materials for different fine motor skills (e.g., grabbing, twisting, cutting, sewing, piecing together, squeezing, stringing, nailing, etc.).
		env09	Providing many types of gross motor equipment for indoor or outdoor use (e.g., balance, swings, slides, climbing equipment, different sizes of balls, tricycles, bicycles, etc.).
		env10	Providing sufficient indoor space for play (to allow for multiple types of indoor play to occur at the same time), and materials are well stored and well organized.
		env11	Providing soft objects (e.g., plush pillows, cushions, stuffed animals, etc.) and cozy areas for relaxation.
		env12	Providing accessible space for privacy that can be used freely by the child (a separate space protected from intrusion by others).
		env13	Providing enough building blocks (e.g., wooden blocks, plastic blocks, soft blocks, large/small interlocking blocks, cardboard, paper boxes, etc.) and enough accessories (e.g., toy figures, animals, cars, and signs) for use and play.

		env14	Providing various types of toys or tools for sand and water play (e.g., containers, shovels, spoons, pots and pans, toy animal molds, toy trucks, etc.).
		env15(R)	Providing whole-group activities most of the day.
		inter01	I know the child's interests and abilities and use this information in my interaction with him/her or in designing activities for him/her.
		inter03(R)	On busy and chaotic days, I am more irritable and less patient if the child misbehaves or gets into trouble.
		inter04	When the child is involved in play, I pay attention to what he/she is doing, and give help when needed (e.g., providing materials, helping the child complete a difficult task).
		inter05	I listen closely to what the child says and respond to him/her positively.
		inter06	When speaking to the child, I elaborate on his/her words or encourage him/her to say more.
		inter07	I talk to the child about things or events that happened in the past (e.g., a trip we went on together or how it was on his/her first day at the preschool/nursery care center/nanny's residence).
		inter08	I help the child communicate or interact with other children (either initiated by the child or initiated by other children.)
		inter09	When the child run into conflict with other child(ren), I help him/her understand other people's perspectives.
Chinese parenting	**Internal consistency:** α=.90	faith01	The adult's scolding or criticism helps the child improve.
		faith02	The child should be punished when he/she

		is disobedient.
		faith03 The adult should tell the child to feel ashamed when he/she misbehaves.
		faith04 An adult should feel ashamed if the child misbehaves when they go out.
		faith05 The adult should teach the child to get better and better, as a way to help the child improve.
		faith06 The child's high academic achievement is the basis for the adult 's sense of accomplishment.
Educarer-child relationship	**Internal consistency:** α=.60	relation01 When I talk to the child, the child should look at me attentively.
		relation02 When I point out the child's mistakes, he/she must not talk back.
		relation03 When I scold the child, he/she must not wear a long face (or give a dirty look).
		relation04 The child should obey all the rules I set.
		relation05 All my demands are in the best interest of the child, so the child should repay me when he/she grows up.
		relation06 The child should be thankful for what I have done for him/her.
Educarer-child interaction	**Internal consistency:** α=.82	inter01 I know the child's interests and abilities and use this information in my interaction with him/her or in designing activities for him/her.
		inter02 I change my schedule to accommodate the needs of the child.
		inter03(R) On busy and chaotic days, I am more irritable and less patient if the child misbehaves or gets into trouble.
		inter04 When the child is involved in play, I pay attention to what he/she is doing, and give help when needed (e.g., providing materials, helping the child complete a difficult task).

		inter05	I listen closely to what the child says and respond to him/her positively.
		inter06	When speaking to the child, I elaborate on his/her words or encourage him/her to say more.
		inter07	I talk to the child about things or events that happened in the past (e.g., a trip we went on together or how it was on his/her first day at the preschool/nursery care center/nanny's residence).
		inter08	I help the child communicate or interact with other children (either initiated by the child or initiated by other children.)
		inter09	When the child run into conflict with other child(ren), I help him/her understand other people's perspectives.
		inter10	I can teach the child well.
Parent-educarer relationship	**Internal consistency:** α=.87	parents01	The child's parents care about me.
		parents02	The child's parent lets me know that I am a good educarer/nanny.
		parents03	The child's parent appreciates the efforts I put in to care and educate the child.
		parents04	The child's parent provides me with information regarding the child's learning at home.
		parents05	The child's parents accept my suggestions regarding child rearing. .

Note：

a： Harms, T., Clifford, R. M., & Cryer, D. (2006). The Early Childhood Environment Rating Scale-Revised, (S. F. Chen & T. W. Kuo-Li, Trans.). Taipei: Psychology.

(R)：reversed item

***p<0.001