

# Instrument documentation

## Child care questionnaire

### 5 years

The Norwegian Mother and Child Cohort Study (MoBa)

Questionnaire for educational staff in child care

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## MODELL STRUKTUR AV HVA SOM SKAL PRESENTERES PER INSTRUMENT/ SEKSJON

### Instrument

#### 1. Name of original instrument/question:

Original name of scale (*no name* if only single question)

List wording of questions included in the section (with number from questionnaire in front) and write response categories (with values used in the dataset)

#### 2. Description of original scale or selection of items used

Description of analytical approaches for selecting just a sample of items from a scale

If single question. NOT RELEVANT

If selection of established short version, make referral to literature and/or use

Where does the Q/scale come from, what is it meant to measure. Description of number of items, subscales. Where the Q/scale has been used and any information that give insight into what instrument this is.

Primary references of the instrument as well as important secondary publications.

#### 3. Rationale for Choosing Instrument:

What is it meant to measure and IF RELEVANT: Why this is a good measure.

#### 4. Modifications:

Describe modifications during the study from one version to another.

Write if omitted or added from one version to another

## Brief information about the pedagogical leader

### 1. Name of original scale/ questions:

No scale, single questions

Q 0-1 How long have you been employed in this child care centre? (Years, months)

Q 0-2 How long have you been working with children? (Years, months)

Q 0-3 How long have you known the project child (this child)? (Years, months)

Q 0-4 Are you the pedagogical leader? (No, Yes, If no, please state type of employment \_\_\_\_)

### 2. Description of original scale:

Not relevant

*Psychometric Information (sample, reliability, validity):*

Not relevant

### 3. Rationale for Choosing Instrument:

The questions are an index for the experience of the person filling out the form has working with children in general, and particularly with the project child.

### 4. Revision during the data collection period:

No revisions from version A to B

### 1-3. About the child care centre

**1. Name of original scale/ questions:**

No scale, MoBa specific single questions.

Q	Child Care 60 months	Response options	Variable name
1	<b>How is the child care centre organized?</b>		
		1-Unit child care centre 2-Base child care centre 3-Zone child care centre	S__1
2	<b>Does the child care centre have a particular pedagogical profile or academic framework?</b>		
		1-No 2-Yes If yes, describe_____	S__2_1  S__2_2 (txt)
3	<b>How many units is the entire child care centre divided into and how many children are in the child care centre in total?</b>		
	Number of units Number of children Number of staff	Frequency 0 – 9 Frequency 0 – 999 Frequency 0 - 99	S__3_1 S__3_2 S__3_3

**2. Description of original scale:**

*Psychometric Information (sample, reliability, validity):*

Not relevant

*Base Reference/Primary Citation:*

Not relevant

**3. Rationale for Choosing Instrument:**

Organizational aspects and size of the child care are indicators of the structural quality of the child care centre.

**4. Revision during the data collection period:**

No revisions from version A to B

## 4-10. About the unit/base of the project child

### 1. Name of original scale/ questions:

No scale, MoBa specific single questions.

Q		Response options	Variable name
4	<b>How many children at different ages are there in the unit/base of the project child?</b>		
	0-18 months 19-35 months 3 yrs 4yrs 5yrs 6yrs	Frequency 0 - 99	S_4_1 S_4_2 S_4_3 S_4_4 S_4_5 S_4_6
5	<b>How many girls and boys are there all together in the project child's unit?</b>		
	Girls Boys	Frequency 0 - 99	S_5_1 S_5_2
6	<b>How many children have started in the project child's unit/base in the last school year?</b>		
	Number	Frequency 0 - 99	S_6
7	<b>How many children are normally present at different times in a typical day in your unit?</b>		
	Before 9am From 9am to 4pm After 4pm	Frequency 0 - 99	S_7_1 S_7_2 S_7_3
8	<b>How many adults are normally present at different times on a typical day in the project child's unit/base?</b>		
	Before 9am____ From 9am to 4pm____ After 4pm_____	Frequency 0 - 99	S_8_1 S_8_2 S_8_3
9	<b>Estimate the % extra resource the unit is entitled to, for the children with special needs.</b>		
		Percentage 0 – 100 % No extra resources	S_9_1 S_9_2
10	<b>Estimate the % extra recourse the unit receives, for children with special needs.</b>		
		Percentage 0-100 % No extra resources	S_10_1 S_10_2

### 2. Description of original scale:

*Base Reference/Primary Citation:*

Not relevant.

*Psychometric Information (sample, reliability, validity):*

Not relevant

### 3. Rationale for Choosing Instrument:

These sections are measures of the organization of the kindergarten and the group of children in the MoBa child's unit, which constitutes the MoBa child's *context in the kindergarten*.

### 4. Revision during the data collection period:

No revisions from version A to B

# Specifically about the MoBa project child

## 11-12. Adaptation to kindergarten

### 1. Name of original scale/ questions: The School Readiness Questionnaire (SRQ)

Q		Response options	Variable name
11	How long has the project child attended this child care center?		
	Number of years	Frequency 0 - 9,9	S_11
12	How do you find the child is coping in the following areas?		
	1. Settling into the child care centre	1- Very well 2- Well 3- Average 4- Some difficulty 5- Considerable difficulty	S_12_1
	2. Co-operation with other children		S_12_2
	3. Relationship with teacher		S_12_3
	4. Concentration		S_12_4
	5. Use of play materials		S_12_5
	6. Confidence		S_12_6
	7. Speak in groups of children		S_12_7
	8. Follow instructions		S_12_8
	9. Personal needs		S_12_9
	10. Motor coordination		S_1210
	11. Agreeableness		S_1211
	12. Fine motor skills		S_1212
	13. Adaptation to child care center		S_1213

### 2. Description of original scale:

This is a 13-item scale for teachers to rate via five-point Likert scales, with responses ranging from 'child coping very well' to having 'considerable difficulties'. Items cover: personal social variables, including cooperation with other children, relationship with teacher, coping with personal needs and sociability, and cognitive variables, including concentration, use of materials, verbalizing in class work, following instructions, plus fine motor and physical coordination as a single index of physical maturity. The final item is an overall rating of the child's readiness for school (Prior et al., 2000).

#### *Psychometric Information:*

The unidimensionality of the SRQ scale was confirmed in a factor analysis (Principal axes with Promax rotation) on the 13 items which produced only one factor that had an eigenvalue above unity and accounted for 62% of the variance. Given that the internal consistency of this single-factor scale was very high (Cronbach  $\alpha = .95$ ), a mean score was computed of these SRQ items (Prior et al, 2011).

Prior, M., Bavin E. & Ong, B. (2011). Predictors of school readiness in five – to six – year – old children from an Australian longitudinal community sample. *Educational Psychology*, **31** (1), 3-16.

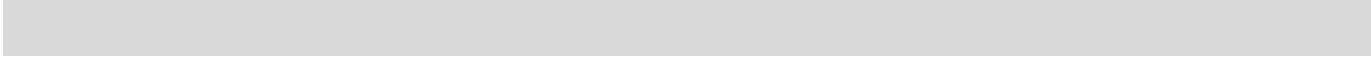
Prior, M., Sanson, A., Smart, D., & Oberklaid, F. (2000). Pathways from infancy to adolescence: Australian Temperament Project 1983–2000. Melbourne: Australian Institute of Family studies.

### 3. Rationale for Choosing Instrument:

The SRQ was developed for the Australian Temperament Project (Prior et al., 2000), a longitudinal study of Australian children which began in 1983 and is still ongoing (Smart & Sanson, 2003). It was used to measure SR in children from that project also at age five to six years and proved to be a predictor of a range of developmental outcomes in both boys and girls across the years from 5 to 12 years of age (Prior et al., 2000).

**4. Revision during the data collection period:**

No revisions from version A to B





### 13. The relationship between child and adult in child care.

#### 1. Name of original scale/ questions: Student-Teacher Relationship Scale (STRS)

Q		Response options	Variable name
13	To what extent are the following statements correct, regarding your relationship with this child?		
	1. I share an affectionate, warm relationship with this child		S_13_1
	2. This child and I always seem to be struggling with each other		S_13_2
	3. If upset, this child will seek comfort from me		S_13_3
	4. This child is uncomfortable with physical affection or touch from me		S_13_4
	5. This child values his/her relationship with me		S_13_5
	6. When I praise this child, he/she beams with pride	1- Not true at all	S_13_6
	7. This child spontaneously share information about himself/herself	2- Not quite true	S_13_7
	8. This child easily becomes angry with me	3- Neutral, not sure	S_13_8
	9. It is easy to be in tune in what this child is feeling	4- Quite true	S_13_9
	10. This child remains angry or is resistant after being disciplined	5- Very true	S_1310
	11. Dealing with this child drains my energy		S_1311
	12. When the child is in a bad mood, I know we're in for a long and difficult day		S_1312
	13. This child's feelings about me can be unpredictable or can change suddenly		S_1313
	14. This child is sneaky and manipulative with me		S_1314
	15. The child openly shares his/hers feelings and experiences with me		S_1315

#### 2. Description of original scale:

This is a thirty-one item rating scale, using a Likert-type format, designed to assess teachers' perceptions of their relationships with particular students. The scale consists of three subscales: Conflict, Closeness and Dependency.

Conflict items are designed to attain information about perceived negativity within the relationship (e.g., 'This child remains angry or is resistant after being disciplined,' 'This child is sneaky or manipulative with me,' and 'This child easily becomes angry with me'), whereas closeness items ascertain the extent to which the relationship is characterized as warm, affectionate, and involving open communication (e.g., 'I share an affectionate, warm relationship with this child,' 'If upset, this child will seek comfort from me,' and 'This child spontaneously shares information about himself/herself'). Items are rated on a Likert-type scale ranging from 1 'definitely does not apply' to 5 'definitely applies'. The conflict subscale is comprised of seven items, and the closeness subscale is comprised of eight items. In order to make conflict and closeness scores comparable in this study, each child's total conflict and closeness scores were divided by the total number of items measuring that construct, such that conflict and closeness scores indicate the average score per item. (Fra Jerome, Hamre, and Pianta, 2009).

#### *Psychometric Information:*

Validity studies indicate that the STRS correlates in predictable ways with concurrent and future measures of academic skills, including performance on standardized tests (Hamre & Pianta, 2001), behaviour problems and competences in elementary classrooms (e.g. Pianta, 1994; Pianta et al.,

1995). And peer relations (Birch & Ladd, 1998). In general, the STRS scale and subscales show strong evidence for concurrent and predictive validity (papirartikkel, referanse).

In terms of reliability, statistically significant test–retest correlations over a four-week period, and high internal consistency for both conflict and closeness subscales have been established (Pianta, 2001). The STRS has also demonstrated predictive and concurrent validity, and is related to current and future academic skills (Hamre & Pianta, 2001), behavioral adjustment (Birch & Ladd, 1998), risk of retention (Pianta, Steinberg, & Rollins, 1995), disciplinary infractions (Hamre & Pianta, 2001), and peer relations (Birch & Ladd, 1998). Cronbach’s alpha for conflict is .85 and for closeness is .84 (Fra Hamre og Pianta, 2001).

Hamre, B.K. and Pianta, R.C. (2001). Early Teacher–Child Relationships and the Trajectory of Children’s School Outcomes through Eighth Grade. *Child Development*, **72**, (2), 625–638.

Jerome, E.M., Hamre, B.K. and Pianta, R.C. (2009). Teacher–Child Relationships from Kindergarten to Sixth Grade: Early Childhood Predictors of Teacher-perceived Conflict and Closeness. *Social Development*, **18**, (4), 915-945.


Two items are modified due to inappropriate (insulting) wording. A new translation of these items has been developed, with retained meaning. The translation (both Norwegian and back translated English) has been sent to author Pianta who has permitted the new wording.

### **3. Rationale for Choosing Instrument:**

The items on this scale were based on a previous 16-item version (Pianta & Nimetz, 1991) developed from attachment theory, the attachment Q-set (Waters & Deane, 1985), and a review of literature on teacher– child interactions. The items were written to assess a teacher’s feelings and beliefs about her relationship with a student, and her feelings and beliefs about the student’s behavior toward her. This scale has been used extensively in studies of preschool- and elementary-age children (e.g., Birch & Ladd, 1997, 1998; Howes & Hamilton, 1992; Howes & Richie, 1999).

### **4. Revision during the data collection period:**

No revisions from version A to B



## 14-15. Child behaviour at drop off and pick up time

- 1. Name of original scale/ questions:** One question developed for MoBa, four questions from **LSAC** (scale?)

Q	Child Care Questionnaire	Response options	Variable name
14	Is the child picked up by mother/father from the child care center?		
		1- No 2- Yes	S_14

15	If yes, how often do you observe the following?		
	1. When this child arrives he/she greets you enthusiastically	1- Never 2- Sometimes 3- Often 4- Always	S_15_1
	2. While the parent is leaving, the child says goodbye in some way (smiles, waves etc.)		S_15_2
	3. While the parent is leaving, the child seems angry or sad		S_15_3
	4. This child co-operates in getting ready to go home		S_15_4

**2. Description of original scale:**

The original LSAC scale consists of 14 items describing child's behavior during drop off and pick up time. The items describe child's behavior when arriving kindergarten, when the parent leaves the kindergarten and when the parent return to kindergarten to pick up the child. The educational personnel is asked to rate how typical these behaviors are for the MoBa child on a 4 point scale ranging from 'Never' to 'Always'.

*Psychometric Information:*

The Longitudinal Study of Australian Children Annual statistical report 2011. Published by the Australian Institute of Family Studies, 2012, 100 pp.

*Base Reference/Primary Citation:*

Harrison, L. J. (2008). Does child care quality matter? Associations between socio-emotional development and non-parental child care in a representative sample of Australian children. *Family Matters*, 79, 14–25.

*Modifications*

Four of the original 14 items are selected on face validity for use in the MoBa childcare questionnaire; two on issues on arrival and two on leaving.

**3. Rationale for Choosing Instrument:**

These items can be used as a measure on child's attachment to parent and to kindergarten.

**4. Revision during the data collection period:**

No revisions from version A to B

## 16. Language competence of the project child

### 1. Name of original scale/ questions: The Child Developmental Inventory (CDI).

Q	Child Care 60 months	Response options	Variable name
<b>16</b>	<b>Assess the child based on Norwegian language competence</b>		
	1. Asks the meaning of words	1- No 2- Yes	S_16_1
	2. Talks in long, complex sentences, ten words or longer		S_16_2
	3. Uses plurals correctly, for example, says "men", not "mans", "mice", not "mouses"		S_16_3
	4. Names the days of the week in the correct order		S_16_4
	5. Tells where s/he lives, naming the town or city		S_16_5
	6. When asked, "What is a...?" talks about the group it belongs to, for example, "A horse?" "Is an animal." "An orange?" "Is a fruit."		S_16_6
	7. Knows right hand from left.		S_16_7
	8. Uses the words "today", "yesterday" and "tomorrow" correctly.		S_16_8
	9. Tells what a few objects are made of, such as a coat, or a chair.		S_16_9

### 2. Description of original scale:

The Child Development Inventory (CDI) was devised for purposes of clinical evaluation, mass screening, developmental research, and parent education. The CDI consists of 320 statements describing the behaviors of children in the 1st 6 yr. of life. The inventory is completed by the child's mother who endorses those statements which describe the child's behavior. Results are represented in a profile of 8 developmental scales: Gross Motor, Fine Motor, Situation Comprehension, Expressive Language, Verbal Comprehension and Conceptualization, Self-Care, Personal-Social, and General Development.

#### *Psychometric Information (sample, reliability, validity):*

Chaffee, C.A., Cunningham, C.E., Secord-Gilbert, M., Elbard, H. & Richards, J. (1990). Screening effectiveness of the Minnesota Child Development Inventory expressive and receptive language scales: Sensitivity, specificity, and predictive value. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, Vol 2(1), 80-85

#### *Base Reference/Primary Citation:*

Ireton H. (1992). Child Development Inventory, Manual. Minneapolis: Behavior Science Systems.

#### *Modifications*

The scale needed to be abbreviated due to limited space in the questionnaire. The process of deleting items was data driven and followed the following procedure. First all items confirmed by more than 95% of the sample were taken out. Second, variables that showed no variation when controlling for age. Third, an IRT model was used to determine which items had low difficulty, thus discriminating between individuals poorly. The final items were thus the items that provided the most variation.

### 7. Rationale for Choosing Instrument:

The scale is a measure of children's expressive and receptive language competence.

### 4. Revision during the data collection period:

No revisions from version A to B



## 17-20. Literacy and numeracy

### 1. Name of original scale/ questions: The Early Development Instrument (EDI)

The project child's interest for letters ad numbers, reading and writing	Response options	Variable name
<b>17. Reading skills</b>		
Is able to read simple words	1- No 2- Yes	S_17_1
Is able to read simple sentences		S_17_2
Is not interested in reading		S_17_3
<b>18. Writing skills</b>		
Is able to write simple words	1- No 2- Yes	S_18_1
Is able to write simple sentences		S_18_2
Is not interested in writing		S_18_3
<b>19. Numeric skills</b>		
Is able to recognize numbers 1-10	1- No 2- Yes	S_19_1
Is able to ad simple objects		S_19_2
Is not interested in numbers		S_19_3
<b>20. Narrative skills</b>		
The child is clearly expressing what s/he plans to do in the close future (e.g. what the child will do tomorrow or in the holiday)	1- No 2- Yes	S_20_1
The child explains in a clear and understandable way something that happened previously (e.g. what the child did in kindergarten, or what happened during the football match)		S_20_2
Not interested in telling stories		S_20_3

### 2. Description of original scale:

The Early Development Instrument (EDI) is established as a psychometrically adequate indicator of child well-being at school entry. It covers all relevant development domains – reflective of brain development. It is psychometrically reliable at the individual level. It is adequate to monitor and report on populations of children.

#### *Psychometric Information (sample, reliability, validity):*

The Early Development Instrument (EDI), a teacher-completed measure of children's school readiness at entry to Grade 1, was designed to provide communities with an informative, inexpensive and psychometrically sound tool to assess outcomes of early development as reflected in children's school readiness. Its psychometric properties at individual level were evaluated in two studies. Five a priori domains – physical health and well being, social competence, emotional maturity, language and communication, and cognitive development and general knowledge – were tested in a factor analysis of data on over 16000 kindergarten children. The factor analyses upheld the first three domains, but revealed the need to develop two new ones, resulting in the final version of the EDI consisting of: physical health and well- being, social competence, emotional maturity, language and cognitive development, communication skills and general knowledge domains. These final domains showed good reliability levels, comparable with other instruments. A separate study (N=82) demonstrated consistent agreements in parent-teacher, interrater reliabilities, concurrent validity, and convergent validity. These results establish the EDI as a psychometrically adequate indicator of child well-being at school entry.

*Base Reference/Primary Citation:*

Janus, M. & Offord, D. (2007):Development and Psychometric Properties of the Early Development Instrument (EDI): A Measure of children's school readiness. *Journal of Behavioural Science*. 39 (1) pp1-22.

*Modifications:*


Synnve: selection of questions

**3. Rationale for Choosing Instrument:**

The instrument measures school readiness, such as literacy and numeracy.

**4. Revision during the data collection period:**

No revisions from version A to B



# Questions about resources and structure in the child care centre

## 21-26. Staff resources in the unit of the project child

### 1. Name of original scale/ questions: Six questions from BASIL/BONDS

Q	Variable- topic	Response options	Variable name
21	<b>What training/education have the employees in your department / base completed?</b>		
	The leader of the child care centre	1- Preschool teacher 2- Other higher pedagogical education 3- Child and youth worker (certificate) 4- Child and youth worker education ongoing	S_21_1
	The pedagogical leader	5- Other secondary school (completed) 6- Left secondary school or completed primary school 7- Other background	S_21_2
	<b>The other employees in the unit/base</b>		
	Preschool teacher Other higher pedagogical education Child and youth worker (certificate) Child and youth worker education (ongoing) Other secondary school (completed) Left secondary school or completed primary school Other background	Frequency 0-9	S_21_3_1 S_21_3_2 S_21_3_3 S_21_3_4 S_21_3_5 S_21_3_6 S_21_3_7
22	<b>What position (%) does each of the employees in the unit/base have?</b>		
	80-100 % 50-79 % 20-49 % <20 %	Frequency 0-9	S_22_1 S_22_2 S_22_3 S_22_4
23	<b>How many years has the staff worked in the child care centre?</b>		
	More than 5 yrs 3-5 yrs 1-2 yrs Less than 1 yr	Frequency 0-9	S_23_1 S_23_2 S_23_3 S_34_4
24	<b>How many women and men are employed in the unit/base of the project child?</b>		
	Women Men	Frequency 0-99	S_24_1 S_24_2
25	<b>It an exemption given from the requirement for pre-school education / training program?</b>		
	For the leader of the child care centre	1- No	S_25_1
	For the leader of the unit	2- Yes, temporary 3- Yes, permanent	S_25_2
26	<b>How do you consider the general staff stability in your unit from July to December this year?</b>		
		1- Very good 2- Pretty good 3- Neither good, nor poor 4- Less good 5- Not good	S_26

### 2. Description of original scale:



Questions from BASIL/BONDS about the staff resources and staff background in the unit. The items include questions about the education of the staff (including exemption from the requirement for pre-school education), the position percentages of the staff, the gender distribution of the staff, minority background of the staff, and staff stability.

*Psychometric Information:*

*Base Reference/Primary Citation:*

**3. Rationale for Choosing Instrument:**

The items in these sections are measures of the *structural qualities* in the kindergarten.

**4. Revision during the data collection period:**

No revisions from version A to B



## 27. Play area and activities

### 1. Name of original scale/ questions: Questions from the Longitudinal Study of Australian Children (LSAC)

Q		Response options	Variable name
27	The following are statements about the organization of the area and activities in your unit/base. Please enter one cross per line.		
	1. Sufficient space is available so that independent learning areas for children can be developed in your unit to use different learning activities		S_27_1
	2. There is adequate space for a permanent quiet time/rest area for children		S_27_2
	3. Resources are easily accessed to develop activities in response to children's interests		S_27_3
	4. On most days, children are able to access a range of different art and writing materials	1- Strongly disagree	S_27_4
	5. There is sufficient space for one or two children to play by themselves	2- Disagree	S_27_5
	6. A variety of books are available so that children are able to independently access books that stimulate their interest in reading	3- Neither disagree nor agree	S_27_6
	7. A range of materials is available to children to support fine motor and problem-solving skill development (e.g. puzzles, blocks and construction materials)	4- Agree	S_27_7
	8. A range of equipment is available to children to support gross motor skill development (e.g. climbing frames, materials for obstacle courses, balls, tricycles)	5- Strongly agree	S_27_8
	9. The outdoor area is well adapted to the interests and activities of the 4-6 year olds		S_27_9
	10. The unit has sufficient resources to follow up the children's choices and interests		S_2710

### 2. Description of original scale:

The section consists of seven items (1-7) from LSAC Teacher report, wave 3. Item 8 is created for this questionnaire. All items in this section describe the physical space and material the children can use in this kindergarten. The statements include if there is enough space to use different learning activities/ to have quiet time, accessibility of play/ learning material, types of play/learning material and outdoor space. The educational personnel are asked to rate how well the statements fit their unit on a five point scale from 'Strongly disagree' to 'Strongly agree'.

#### *Psychometric Information:*

The Longitudinal Study of Australian Children Annual statistical report 2011. Published by the Australian Institute of Family Studies, 2012, 100 pp.

#### *Base Reference/Primary Citation:*

Harrison, L. J. (2008). Does child care quality matter? Associations between socio-emotional development and non-parental child care in a representative sample of Australian children. *Family Matters*, 79, 14–25.

#### *Modifications:*

The original scale used 'teacher-directed' and 'teacher-supported', which has been replaced by 'adult-directed' and 'adult-supported' in the MoBa childcare questionnaire.

### 3. Rationale for Choosing Instrument:

These scales are used as measures of structural quality in the kindergarten.

### 4. Revision during the data collection period:

No revisions from version A to B



## 28. Pedagogical profile and areas of priority

### 1. Name of original scale/ questions: MoBa specific questions

Q		Response options	Variable name
<b>28</b>	<b>Please rate how typical the following practices are:</b>		
	1. The children can mostly play undisturbed	1- Very common practice  2- 2 3- 3  4- 4  5- Very uncommon practice	S_28_1
	2. The adults are actively looking for opportunities to guide the children in play		S_28_2
	3. Children take part in decisions when we plan projects in the child care center		S_28_3
	4. We need to cut down on the time for free play to have time for planned activities		S_28_4
	5. Children take part in planning daily activities in the child care center		S_28_5
	6. If the children's play is very good, we drop planned activities		S_28_6
	7. We have a strong focus on giving the children the knowledge they need		S_28_7
	8. We always follow the daily plan		S_28_8
	9. Play groups are initiated by children themselves		S_28_9
	10. We challenge children by facilitating for activities that are a little more difficult than what they normally do		S_2810
	11. We prioritize good conversations with the children even at the expense of other planned activities		S_2811
	12. The children themselves choose most of the activities		S_2812
	13. We do not always have the time for good conversations because planned activities get in the way		S_2813
	14. Through conversations the children show their level of maturity and the adults adjust the conversation to the same level		S_2814
	15. We challenge the children's understanding and mastering by adjusting the conversation a little above the child's level		S_2815
	16. We use conversation groups to ensure that every child is seen and heard		S_2816
	17. Children take part in deciding activities even at the expense of planned activities		S_2817

*Base Reference/Primary Citation:*

Not relevant.

*Psychometric Information:*

Not relevant.

### 2. Description of original scale:

MoBa specific questions concerning the pedagogical profile in the childcare center. This measurement has been developed for the MoBa childcare questionnaire. The educational personnel are asked to rate how well a number of statement fit regarding the pedagogical profile of the kindergarten.

**3. Rationale for Choosing Instrument:**

Section measure how typical each suggested strategies used in the kindergarten are. Serve as a proxy for how staff makes prioritization during daily activity tapping into a dimension from child oriented, impulsive non-schedule focused to schedule focused, structure plan

**4. Revision during the data collection period:**

No revisions from version A to B



## 29-30. Assessment of skills and development

### 1. Name of original scale/ questions: MoBa specific questions

Q		Response options	Variable name
29	What are your routines for assessing the following of the children's skills		
	Language competence	1- Regular assessment	S_29_1
	Motor skills	2- Assessment on demand	S_29_2
	Play skills	3- Regular observation	S_29_3
	Social skills (interaction competence)	4- Observation on demand only	S_29_4
30	How does the unit/base use the results from the assessment/observation?		
		Please describe the most common use. _____	S_30 (txt)
31	Does the kindergarten have written routines to inform the following if the assessments and results lead to concern?		
	Parents	1- No 2- Yes	S_31_1
	Health centres		S_31_2
	Educational psychology services		S_31_3
	Specialist health services		S_31_4

### 2. Description of original scale:

MoBa specific questions developed to measure assessment routines in the child care center. This measurement has been developed for the MoBa childcare questionnaire.

*Base Reference/Primary Citation:*

Not relevant.

*Psychometric Information (sample, reliability, validity):*

Not relevant.

### 3. Rationale for Choosing Instrument:

These sections are included to measure the kindergarten's routines for assessing the children's skills in different areas, and furthermore to measure the awareness of the staff as to why they measure these skills, what the rationale for measuring is. The last section is a measure on the routines of co-operations with external services in the cases of children with special needs.

### 4. Revision during the data collection period:

No revisions from version A to B

## 32-34. Thematic areas and practice

### 1. Name of original scale/ questions: Questions from ECERS/BONDS

Q		Response options	Variable name
<b>32</b>	<b>How often do you facilitate for a structural pedagogical program for the children in the following areas?</b>		
	1. Scribbling	1- Daily 2- 3-4 timer per week 3- 1-2 times per week 4- Every second week 5- Once a month or less	S_32_1
	2. Exploring letters (in the nature, books, milk cartoons)		S_32_2
	3. Practice word pictures ( e.g. note with "fridge" on the fridge)		S_32_3
	4. Writing whole words		S_32_4
	5. Explore geometry, shapes, patterns or other mathematical concepts		S_32_5
	6. Understanding numbers		S_32_6
	7. Sensory-motor and physical play		S_32_7
	8. Culture and distinctiveness		S_32_8
	9. Creative activities (paint, draw, woodwork etc.)		S_32_9
	10. Outdoor activities focusing on environmental knowledge		S_3210
	11. Playgroups focusing on role play (e.g. play shop, hospital, cafe etc.)		S_3211
	12. Computers (pedagogical games, search for pictures etc.)		S_3212
<b>33</b>	<b>How often has the personnel group as a whole worked systematically with one or more of these 6 areas of the curriculum in the last 6 months?</b>		
	1. Child care and child-rearing	1- Daily 2- 3-4 timer per week 3- 1-2 times per week 4- Every second week 5- Once a month or less	S_33_1
	2. Play		S_33_2
	3. Learning		S_33_3
	4. Social competence		S_33_4
	5. Language competence		S_33_5
	6. Child care centre as a cultural arena		S_33_6
<b>34</b>	<b>To what extent do you agree/disagree with that the personnel in your unit has good competence in the following thematic areas</b>		
	1. Social competence	1- Strongly disagree 2- Disagree 3- Neither agree nor disagree 4- Agree 5- Strongly agree	S_34_1
	2. Bullying amongst peers		S_34_2
	3. Behavioral problems		S_34_3
	4. Language competence		S_34_4
	5. Shy children		S_34_5

### 2. Description of original scale:

Questions from ECERS/BONDS about thematic areas and practice in the child care center. This section measures what thematic areas the personnel in the kindergarten have focused on the last six months, and how often they explicitly have work with this area. The response categories range from 'Daily', '3-4 timer per week', 'Once or twice per week', 'Every second week' to 'Once a month'.

*Psychometric Information (sample, reliability, validity):*

*Base Reference/Primary Citation:*

NOU 2010:8 (2010). Med forskertrang og lekelyst. Systematisk pedagogisk tilbud til alle førskolebarn. Oslo: Statens forvaltningstjeneste.

Kunnskapsdepartementet (2006) Rammeplan for barnehagens innhold og oppgaver.


Utdanningssetaten i Oslo (2007): ABC, 123. Oslo: Stens trykkeri.

**3. Rationale for Choosing Instrument:**

The first section covers the 6 main areas in Norwegian curriculum: Child care/ child rearing, Play, Learning, Social competence, Language competence, Kindergarten as a cultural arena. Fagområder i rammeplanen.

**4. Revision during the data collection period:**

No revisions from version A to B





### 35. Staff cooperation / enthusiasm / environment

#### 1. Name of original scale/ questions: Questions from the Longitudinal Study of Australian Children (LSAC)

Q		Response options	Variable name
35	Please enter a cross indicating how you feel the following statements fit your unit/base		
	1. Staff can rely on colleagues for support and assistance when needed	1- Strongly disagree 2- Disagree 3- Neither agree nor disagree 4- Agree 5- Strongly agree	S_35_1
	2. Staff have a clear understanding of their roles and responsibilities		S_35_2
	3. Staff are able to contribute to decision-making about policies and practices in the child care centre		S_35_3
	4. Staff go about their work with enthusiasm		S_35_4
	5. My personal philosophy and goals are in agreement with those of the child care center		S_35_5

#### 2. Description of original scale:

Questions from LSAC about the staff environment in the child care center. Full scale with six items is used in LSAC Teacher Questionnaire, wave 3.

##### *Psychometric Information:*

The Longitudinal Study of Australian Children Annual statistical report 2011. Published by the Australian Institute of Family Studies, 2012, 100 pp.

##### *Base Reference/Primary Citation:*

Harrison, L. J. (2008). Does child care quality matter? Associations between socio-emotional development and non-parental child care in a representative sample of Australian children. *Family Matters*, 79, 14–25.

#### 3. Rationale for Choosing Instrument:

This section is a measure of personnel environment, *a process quality* in the kindergarten.

#### 4. Revision during the data collection period:

No revisions from version A to B

## 36. Co-operation with parents

### 1. Name of original scale/ questions: Questions from the Longitudinal Study of Australian Children (LSAC)

Q		Response options	Variable name
36	Enter a cross for how often you facilitate different kinds of cooperation with the children's parents		
	1. Formal parent-teacher meetings about children's progress	1- Once a year 2- Once every 6 months	S_36_1
	2. Parent education programs or information sessions	3- Twice every 6 months 4- Once a month	S_36_2
	3. Regular newsletters about your program and events	5- Several times per months	S_36_3

### 2. Description of original scale:

Three items selected from LSAC about the co-operation with parents in the child care center. Full scale with seven items used in LSAC Teacher-Questionnaire, wave 3.

#### *Psychometric Information:*

The Longitudinal Study of Australian Children Annual statistical report 2011. Published by the Australian Institute of Family Studies, 2012, 100 pp.

#### *Base Reference/Primary Citation:*

Harrison, L. J. (2008). Does child care quality matter? Associations between socio-emotional development and non-parental child care in a representative sample of Australian children. *Family Matters*, 79, 14–25.

### 3. Rationale for Choosing Instrument:

This section measures the formal co-operation between the parents and the kindergarten, an indicator of the structural quality in the kindergarten.

### 4. Revision during the data collection period:

No revisions from version A to B

# Specific conditions for the project child

## 37-51. The child's special needs

### 1. Name of original scale/ questions: MoBa specific questions

Q		Response options	Variable name
37.	How many hours per week does the child spend in the child care center?		
	Hours	Frequency 0 - 99	S_37
38.	Does the child participate in any adapted special activities?		
	Five year club with (social focus)	1- No 2- Yes	S_38_1
	School preparation group (academic focus)		S_38_2
39.	Has the child's language competence been assessed?		
		1- No 2- Yes	S_39
40.	If yes, what was the result?		
		1- Everything was good 2- Need some extra stimulation 3- Need to apply for extra resources 4- Need special Norwegian training (or minority language children)	S_40
41.	Does the project child have any special difficulties?		
		1- No 2- Yes	S_41
42.	If yes, in what areas?		
	General developmental delay Emotional difficulties Behaviour problems Contact problems/autism spectrum Learning difficulties Restlessness/ concentration problems Hearing or sight impairments Physical disability Language delay Other, please specify____		S_42_1 S_42_2 S_42_3 S_42_4 S_42_5 S_42_6 S_42_7 S_42_8 S_42_9 S_4210_1 (txt)
43.	Has extra resources been applied for, for this child?		
		1 -No 2- Yes	S_43
44.	If yes, how many hours per week?		
	Hours	Frequency 0 - 99	S_44
45.	Have extra measures for special needs of the project child been implemented?		
		1-No 2-Yes	S_45
46.	If yes, how many hours per week?		
	Hours	Frequency 0 - 99	S_46
47.	State how many hours per week individual support is being given to the child by the educational groups:		
	Preschool teacher Special education teacher Other background		S_47_1 S_47_2 S_47_3

	Child and youth worker Unqualified		S_47_4 S_47_5
48.	Does any of the staff who gives individual support to the child have minority language background?		
		1- No 2 -Yes	S_48
49.	If yes, on what level do you regard her/his level of Norwegian fluency?		
		1- Norwegian as well as mother tongue 2- Fluent 3- Very good 4- Good 5- Some Norwegian knowledge 6- Prefers other language than Norwegian	S_49
50.	Does the child care center provide parental guiding related to the child's special needs?		
		1- No 2- Yes	S_50
51.	Does the child care center receive external guidance related to the child's special needs?		
		1- No 2- Yes If yes, name _____	S_51_1 S_51_2 (txt)

## 2. Description of original scale:

Questions are developed specifically for the MoBa child care questionnaire.

*Base Reference/Primary Citation:*

Not relevant.

*Psychometric Information (sample, reliability, validity):*

Not relevant

## 3. Rationale for Choosing Instrument:

The questions in this section are chosen as they measure the special needs of the project child and the resources put in. This may be a measure of the quality of the child care centre.

## 4. Revision during the data collection period:

No revisions from version A to B



## 52. Skills of importance for language development

**1. Name of original scale/ questions:** 20 questions about language skills - 20 spørsmål om språkferdigheter (språk20).

Q		Response options	Variable name
52	Do the following fit the child:		
	1. Forgets words s/he knows the meaning of	1- Doesn't fit the child, absolutely wrong	S_52_1
	2. Mixes up words with similar meaning (e.g. shirt, sweater, jacket)		S_52_2
	3. Has difficulties in understanding the meaning of common words		S_52_3
	4. Has difficulties in answering questions as quickly as other children	2- 2	S_52_4
	5. Is often searching for the right words	3- Both yes and no	S_52_5
	6. Using uncompleted sentences	4- 4	S_52_6
	7. Is using short sentences when s/he is answering questions	5- Fits fine with the child, absolutely right	S_52_7
	8. Has difficulties in retelling a story s/he has heard		S_52_8

### 2. Description of original scale:

*Psychometric Information/Base Reference/Primary Citation:*

Ottem, E. (2009). 20 spørsmål om språkferdigheter – en analyse av sammenhengen mellom observasjonsdata og testdata, *Skolepsykologi*, 1, 11-27.

*Modifications:*

The original scale has been shortened from 23 to eight questions.

### 3. Rationale for Choosing Instrument

How well the child speaks compared to other children at the same age is relevant for knowing the child level of language.

### 4. Revision during the data collection period:

No revisions from version A to B

## 53. The child's behaviour

### 1. Name of original scale/ questions: Child behaviour checklist (CBCL)

Q		Response options	Variable name
53	To what extents are the following statements true of your child's behaviour during the last two months?		
	1. Gets in many fights	1- Not true 2- Somewhat or sometimes true 3- Very true or often true	S_53_1
	2. Can't stand waiting; wants everything now		S_53_2
	3. Punishment doesn't change his/her behavior		S_53_3
	4. Can't sit still, restless or hyperactive		S_53_4
	5. Quickly shifts from on activity to another		S_53_5
	6. Clings to adults or too dependent		S_53_6
	7. Gets too upset when separated from parents		S_53_7
	8. Too fearful or anxious		S_53_8
	9. Cries a lot		S_53_9
	10. Disturbed by any change in routine		S_5310
	11. Has at least one friend s/he plays with daily		S_5311

### 2. Description of original scale:

CBCL is one of the most frequently used assessments in the collection of data regarding child behavior. Symptoms are divided into externalizing and internalizing problems. Questions are answered using a ranking from “not true” to “somewhat or sometimes true” to “very true or often true”. CBCL can be divided into subscales. The empirically-based scales consist of seven categories in addition to a category of “other problems”. These are “emotionally reactive”, “anxious/depressed”, “somatic complaints”, “withdrawn”, “sleep problems”, “attention problems” and “aggressive behavior”. The four first categories comprise a broader grouping of internalizing symptoms, whereas the two last scales comprise a grouping of externalizing problems.

#### *Psychometric Information (sample, reliability, validity)*

The following data are from the manual and refers to the development scale, not the NICHD Study of Early Child Care data.

#### Reliability

All sub-scales showed good test-retest reliability ( $p < .001$ ;  $r = .71 - .93$ ). Interparental agreement was significant ( $p < .01$ ) at both ages ( $r = .63$  at age 2;  $r = .60$  at age 3). All stability coefficients were significant at  $p < .001$  over a 1-year period.

#### Validity

The initial CBCL/ASEBA preschool form was developed in 1982 on the basis of epidemiological findings for four and five year olds, consultation with practitioners, researchers, and parents of preschoolers, and reviews of previous research. Several pilot editions were tested. In the current version nearly all items significantly discriminate between referred and nonreferred children assigned to empirically-based or DSM-oriented scales.

CBCL has been found to have adequate sensitivity (71 %) and specificity (92 %) across several studies, compared to standardized assessments in a Norwegian sample of 5200 children and adolescents aged 4-16 (Novik, 1999). The results supported the predictive validity of the CBCL as

judged by its ability to distinguish between children with psychiatric disorders and psychiatrically non-disordered children. According to the US manual 90 % of referred cases were screened positive (Bilenberg, 1999).

*Base Reference/Primary Citation:*

Achenbach, T.M. (1992). Manual for the Child Behavior Checklist/2-3 and 1992 Profile. Burlington, VT: University of Vermont Department of Psychiatry.

Bilenberg, N. (1999). The Child Behavior Checklist (CBCL) and related material: standardization and validation in Danish population based and clinically based samples. *Acta Psychiatrica Scandinavica*, 100, 2-52.

Novik, T. S. (1999). Validity of the Child Behaviour Checklist in a Norwegian sample. *European Child and Adolescent Psychiatry*, 8, 247-254.

*Modifications:*

A selection of 25 questions has been developed for use in MoBa. A further reduction to eleven questions was made due to limited space in the questionnaire. This process was done by a data driven process using confirmatory factor analysis in mplus. Items were assigned to two latent factors representing “externalizing behaviour” and “internalizing behaviour”. Modification indices, factor loadings and explained variance for the items were used to select which items to delete and which to keep in the model.

**3. Rationale for Choosing Instrument**

The CBCL is the most widely used assessment of behavioral problems for young children. It is designed to provide standardized descriptions of the child’s behavior.

**4. Revision during the data collection period:**

No revisions from version A to B



## 54. Activities and restlessness

### 1. Name of original scale/ questions:

Conners Parent Rating Scale - Revised, Short form (CPRS-R (S))

Q		Response options	Variable name
<b>54</b>	How much of a problem has this been in the last 6 month?		
	1. Inattentive, easily distracted	1- Not true/ never/ Seldom 2- Somewhat true/ sometimes 3- Quite often 4- Very often	S_54_1
	2. Fidgets with hands or feet, squirms in seat		S_54_2
	3. Messy or disorganized at home or school		S_54_3
	4. Distractibility or attention span a problem		S_54_4
	5. Gets distracted when given instructions to do something		S_54_5
	6. Does not follow through on instructions and fails to finish tasks such as putting away shoes/tidying toys (not due to oppositional behaviour or failure to understand the task)		S_54_6
	7. Easily frustrated in efforts		S_54_7

### 2. Description of original scale:

*Psychometric Information/Base Reference/Primary Citation:*

Conners C. K., Sitarenios, G, Parker, J. D. A. & Epstein J. N. (1998). The revised Conners' Parent Rating Scale (CPRS-R): Factor structure, reliability. *Journal of Abnormal Child Psychology*, 26, 4, 257.

Kumar, G. & Steer, R. A. (2003). Factorial Validity of the Conners' Parent Rating Scale-Revised: Short Form With Psychiatric Outpatients. *Journal of Personality Assessment*, 80(3), 252–259.

*Modifications:*

The scale has been shortened from 12 to 7 questions due to limited space in the questionnaire. This process was done by a data driven process using confirmatory factor analysis in mplus. Modification indices, factor loadings and explained variance for the items were used to select which items to delete and which to keep in the model.

### 3. Rationale for Choosing Instrument

How focused and persistent is the child in task given to them and how easily distracted is s/he from these tasks.

### 4. Revision during the data collection period:

No revisions from version A to B



## 55. Play behaviour

### 1. Name of original scale/ questions: The Preschool Play Behavior Scale (PPBS)

Q		Response options	Value labels
55	Please indicate how common the following statements are for this child.		
	1. Talks to other children during play	1- Never 2- Hardly ever 3- Sometimes 4- Often 5- Very often	S_55_1
	2. Takes on the role of onlooker or spectator		S_55_2
	3. Plays 'make-believe' with other children		S_55_3
	4. Engages in group play with other children		S_55_4
	5. Engages in pretend play by himself/herself		S_55_5
	6. Plays in groups with (and not just beside) other children		S_55_6
	7. Plays 'make-believe' but not with other children		S_55_7
	8. Watches or listens to other children without trying to join in		S_55_8
	9. Plays by himself/herself, engaging in simple motor activities (e.g. running, ringing bells/buzzer)		S_55_9
	10. Engages in active conversations with other children during play		S_5510
	11. Engages in pretend play with other children		S_5511

### 2. Description of original scale:

The scale measures preschoolers non-social and social play behavior. The scale consists of five subscales: 1) Reticent behavior (unoccupied and/or on looking behaviors), 2) Solitary-passive behavior (solitary-exploratory plus constructive behaviors), 3) Solitary-active behavior (solitary-functional plus dramatic behavior), 4) Social play (all forms of group interaction plus peer conversation) and 5) Rough-play (playful mock fighting and rough-and-tumble activities). The response categories are designed to reflect frequency of occurrence (1=Never, 2= Hardly ever, 3= Sometimes, 4=Often, 5=Very often).

*Psychometric Information (sample, reliability, validity):*

**Reliability:** Coplan and Rubin (1998) found that the PPBS subscales displayed moderate to high reliability correlation coefficients, despite small sample sizes. Reticent-wary, social play and rough-play all had relatively high reliability correlations, ranging from  $r = .54$  ( $p < .05$ ) to  $r = .89$  ( $p < .001$ ). The solitary-passive factor had moderate to high reliability correlations, ranging from  $r = .33$  ( $p < .05$ ) to  $r = .79$  ( $p < .01$ ). Solitary-active behavior was less consistently reliable, with a wide range of reliability correlations from  $r = .10$  (n.s.) to  $r = .83$  ( $p < .01$ ).

**Stability:** The stability over time has been found to be moderate to high; reticent,  $r = .65$ ,  $r = .39$ ; social play,  $r = .65$ ,  $r = .66$ ; rough-play,  $r = .43$ ,  $r = .59$ ; solitary-passive;  $r = .49$ ,  $r = .56$ ; and solitary-active,  $r = .50$  (all  $p$ 's  $< .05$ ),  $r = .17$  (n.s.) (Coplan and Rubin, 1998).

**Convergent and discriminant validity:** Coplan and Rubin (1998) analyzed the relationship between PPBS subscales and (1) maternal ratings of child temperament (CCTI) and (2) teacher ratings of child behavior problems (PBQ). They found that reticent behavior was significantly and positively correlated with shyness ( $r = .21$ ,  $p < .001$ ) and emotionality ( $r = .14$ ,  $p < .05$ ) and negatively associated with sociability ( $r = -.13$ ,  $p < .05$ ). Solitary-active behavior was modestly, but significantly and positively associated with activity level ( $r = .12$ ,  $p < .05$ ) and negatively associated with shyness ( $r = -.17$ ,  $p < .01$ ). Social play was significantly and positively associated with sociability ( $r = .18$ ,  $p < .001$ ).

and negatively associated with shyness ( $r = -.27, p < .001$ ). Rough-play was positively associated with activity level ( $r = .22, p < .001$ ) and negatively associated with attention span ( $r = -.20, p < .001$ ).

Solitary-passive behavior was not significantly associated with any child temperament characteristics. The correlation between reticent-wary behavior and internalizing problems was significantly greater than the correlation between internalizing problems and solitary-passive ( $Z = 3.63, p < .001$ ) and solitary-active behavior ( $Z = 6.81, p < .001$ ). Furthermore, partial correlations (controlling for reticent-wary behavior) revealed non-significant relations between internalizing problems and solitary-passive ( $r = .01, n.s.$ ) and solitary-active ( $r = -.02, n.s.$ ) behaviors. In addition, the partial correlation (controlling for solitary-active and solitary-passive behaviors) between reticent-wary behavior and internalizing problems was significant ( $r = .57, p < .001$ ).

*Primary citation/ base reference:*

Coplan, R. J. & Rubin, K. H. (1998). Exploring and Assessing Nonsocial Play in the Preschool: The Development and Validation of the Preschool Play Behavior Scale. *Social Development*, 7 (1), 72-91.

*Modifications:*

Two subscales are selected from the full instrument – A) and B)

### **3. Rationale for Choosing Instrument:**

This scale has been chosen to measure the MoBa child's play behavior.

### **4. Revision during the data collection period:**

No revisions from version A to B

