

# Family and Provider/Teacher Relationship Quality Measures Short Forms: Amendment to the User's Manual



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## FPTRQ MEASURES SHORT FORMS: AMENDMENT TO THE USER'S MANUAL

This *Amendment to the User's Manual* introduces the short forms of the provider/teacher and parent measures of the Family and Provider/Teacher Relationship Quality (FPTRQ), describes how they were created, and provides information on how to use them and estimates of their reliability. Specifically,

- Section 1 presents an overview of FPTRQ measures short forms;
- Section 2 describes the process for developing the short forms;
- Section 3 presents information on how to administer and score the FPTRQ measures short forms; and
- Section 4 presents technical information and limitations of the FPTRQ measures short forms.

Additional information about the FPTRQ measures short forms is included in the appendices.

- Appendix A shows additional technical information about the FPTRQ measures short form subscales;
- Appendix B lists the items for each subscale of the provider/teacher measure short form; and
- Appendix C lists the items for each subscale of the parent measure short form.

For more detailed information, see the *Family and Provider/Teacher Relationship Quality Measures: User's Manual* at <http://www.acf.hhs.gov/programs/opre/research/project/development-of-a-measure-of-family-and-provider-teacher-relationship-quality-fptrq>.

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# Overview of FPTRQ Measures Short Forms

The Family and Provider/Teacher Relationship Quality (FPTRQ) project, sponsored by the Administration for Children and Families' Office of Head Start (OHS) and Office of Planning, Research and Evaluation (OPRE), was a four-year effort to develop measures of the quality of family and provider/teacher relationships in early care and education (ECE) settings for children from birth through age five. The measures were developed by Westat and Child Trends, with additional support from a group of experts who provided guidance and advice.

The FPTRQ measures short forms were developed as alternatives to the FPTRQ parent and provider/teacher full measures in situations where time and/or resources are limited. These short forms may be useful for special circumstances that do not allow the use of the FPTRQ full measures; however, for the most comprehensive collection of information we recommend the use of the full measures. The FPTRQ measures short forms have two major limitations that need to be considered prior to their use and analysis of collected data: (1) fewer items in the short forms results in less information collected on each topic of interest and therefore less evidence to support findings, and (2) the short forms have not been tested in their current format and were created using the data from the FPTRQ full measures collected in the field study.

In order to create the FPTRQ measures short forms, statistically and conceptually strong items were selected from the full FPTRQ provider/teacher and parent measures. Decreasing the number of items in the short forms reduces the burden for respondents to complete as well as the resources needed to administer. The following three principles guided the selection of the items for the short forms:

- (1) Keeping the original groupings of questionnaire items into “subscales” and maintaining the reliability of each subscale that was observed in the FPTRQ full measures;
- (2) Including at least 3 items per subscale; and
- (3) Ensuring that each subscale adequately covers the concepts covered in the FPTRQ full measures.

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## Development of FPTRQ Measures Short Forms

The FPTRQ field study data collected in spring 2014 were used to create the short forms of the provider/teacher and parent measures. The process of identifying items for the short forms consisted of four phases, including three statistical analysis phases and one conceptual review phase.

### 2.1 Phase 1: Identifying Most Reliable Items

To begin, we computed *Cronbach's alpha if item deleted*<sup>1</sup> for each subscale in the measures. The *Cronbach's alpha if item deleted* analysis provides the alpha of a subscale if an item was removed. This iterative approach ensured that items that increased subscale reliability were retained and items that decreased subscale reliability were removed.

After the *Cronbach's alpha* phase of item deletion was completed, we began analysis of the remaining items using the *discrimination index*.<sup>2</sup> The *discrimination index* indicates how well each item distinguishes between providers/teachers and parents with higher and lower subscale scores. This phase aimed to retain items that distinguish well between respondents with high and low subscale scores and drop items that did not distinguish between respondents' relationship quality subscale scores as well. With one exception, items were dropped when the *item-total correlation* was 0.60 or less (based on standards in Gorecki et al., 2013). The exception was the *Openness to Change* subscale for the provider/teacher measure, which had no item-total correlations greater than 0.60. To determine the standard to drop items, item-total correlations from the *Openness to Change* subscale were examined. There was a gap in item-total correlations scores at 0.49, meaning items naturally split above or below this threshold; this standard was used to drop items. For all of the subscales, once items were deleted based on their item-total correlation, we computed item-total correlations based on the new, reduced subscale.

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<sup>1</sup> *Cronbach's alpha if item deleted* determines the reliability that could be achieved using the other items in the same subscale when a particular item was dropped.

<sup>2</sup> The *discrimination index* is computed using the *item-total correlation*, which is the Pearson correlation between a single item and the total score based on all other items.

## 2.2 Phase 2: Identifying Items with Best Distribution

To identify items to drop in the next phase, we produced *item characteristic curves*<sup>3</sup> to analyze the distribution of the items that remained after the *Cronbach's alpha* and *discrimination index* deletions. This step was used to retain items that were normally distributed (i.e., roughly captures the full range of possible item scores) and to drop items that were non-normally distributed based on skewness and kurtosis.

## 2.3 Phase 3: Retaining the Structure and Reliability of the Measures

A high priority of the short form analyses was to retain the structure of each subscale in the full measures. After items were removed using *Cronbach's alpha if item deleted*, *discrimination index*, and *item characteristic curves*, we conducted a *Confirmatory Factor Analysis (CFA)* to ensure that the remaining items aligned with the constructs and elements they were designed to represent. Two CFAs were conducted, one using the sample of providers/teachers (N = 423) and the other using the sample of parents (N=1,184) who had completed the FPTRQ full measures in the field study. The CFA analysis revealed that both the provider/teacher and parent short forms retained the structure of their respective full measures after each of the three statistical steps. The short forms fit the provider/teacher 7-factor structure and the parent 8-factor structure well, as determined by a combination of practical fit indices. See Appendix A for the CFA fit statistics for the FPTRQ full measures and the short forms as well as the generally accepted standards for each index.

Using additional statistical analyses we sought to ensure that the same construct/element was being measured across both short forms for each measure. We used the approach of Bann and Schwerin (2004) to examine the similarity between the measures. The results of this analysis provide information about how much variance of the FPTRQ full measures is captured in the short forms. As shown in Table 2-1 (the provider/teacher measure) and Table 2-2 (the parent measure), the results show strong correlations (0.87 to 0.97) between the full measure subscales and the corresponding short form subscales. This suggests that the short form subscales are measuring the same constructs as the FPTRQ full measures. In addition, the variance accounted for ranged from 76 percent to 94 percent, indicating that the short form subscales adequately capture the range of the constructs being measured in the FPTRQ full measure subscales.

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<sup>3</sup> *Item characteristic curves* plot respondent subscale scores into quartiles, then compute the mean (*M*) of each item on the scale within each of the four quartiles (Q1, Q2, Q3, and Q4); items an equal spread of subscale scores, or a good distribution, are retained.

**Table 2-1. Provider/teacher full measure and short form correlations and variance accounted for**

Subscale	Correlation with full measure	Variance accounted for
Family-specific Knowledge .....	.90	81%
Collaboration.....	.87	76%
Responsiveness .....	.93	86%
Communication .....	.95	90%
Openness to Change.....	.87	76%
Respect .....	.97	94%
Commitment .....	.89	79%

**Table 2-2. Parent full measure and short form correlations and variance accounted for**

Subscale	Correlation with full measure	Variance accounted for
Family-specific Knowledge .....	.91	83%
Collaboration.....	.93	86%
Responsiveness .....	.92	85%
Communication .....	.93	86%
Family-focused Concern .....	1.00	100%
Respect .....	.95	90%
Commitment .....	.93	86%

## 2.4 Phase 4: Conceptual Coverage

After the three statistical phases of item selection were completed, a conceptual review (phase 4) of the short forms was conducted to ensure that each subscale adequately covered the construct it was intended to measure. This review was completed by a member of the FPTRQ Technical Work Group who had assisted in the development of the FPTRQ conceptual model, consulted on construct assignments for the FPTRQ full measures, and is a lead researcher in the early care and education community. The items that remained on the measures short forms after the conceptual review were retested using the statistical analyses described above (phases 1-3). The full process is outlined below:

1. The statistical analyses described above were completed in full (phases 1-3);
2. The reviewer was presented with the items identified to be dropped;
3. The reviewer selected items identified to be dropped that were necessary to ensure adequate conceptual coverage;
4. The items identified by the reviewer were added back to the short measures; and
5. All analyses described above were conducted again (phases 1-3).

## 2.5 Description of the FPTRQ Measures Short Forms

The **provider/teacher measure short form** is intended for ECE providers and teachers of children from birth through 5 years old in a center-based, family child care, or Head Start/Early Head Start ECE program. This short form asks respondents questions about how they work with all parents of children in their care, such as how easy or difficult it is for parents to reach them during the day and how often parents share information about their home life with the provider. The provider/teacher measure short form includes 23 items (including 4 demographic items) and takes about 5 minutes to complete, on average. It is available in English and Spanish. See Appendix B for the items included in the provider/teacher measure short form by subscale.

The **parent measure short form** is intended for parents of children birth through 5 years old who are cared for by providers or teachers in a center-based, family child care, or Head Start/Early Head Start ECE program. This short form asks parents questions about how they work with their child's lead provider or teacher (not aides or assistant teachers), such as how easy or difficult it is to reach their provider/teacher during the day and how comfortable they feel talking to their provider/teacher about various topics. The parent measure short form includes 25 items (including 8 demographic items) and takes about 5 minutes to complete, on average. It is available in English and Spanish. See Appendix C for the items included in the parent measure short form by subscale.

# How to Administer and Score the FPTRQ Measures Short Forms

## 3

This section describes how to administer and score the FPTRQ measures short forms, including preparing hard copies of the short forms, administering the short forms, and using the Excel scoring sheets. It also describes the item response codes and reverse-coded items.

### 3.1 How to Administer and Score the Short Forms

The FPTRQ measures short forms are designed to be self-administered questionnaires. Each short form takes about 5 minutes to complete. The format for administration and scoring is exactly like that used in the full FPTRQ measures. More detailed information on how to administer and score the forms can be found in the User's Manual at <http://www.acf.hhs.gov/programs/opre/research/project/development-of-a-measure-of-family-and-provider-teacher-relationship-quality-fptrq>.

Printable PDF versions of the FPTRQ measures short forms can be downloaded at no cost from the OPRE website <http://www.acf.hhs.gov/programs/opre/research/project/development-of-a-measure-of-family-and-provider-teacher-relationship-quality-fptrq>. Electronic scoring sheets designed to calculate construct and subscale scores of the FPTRQ measures short forms are also located on the same OPRE website.

Users should take the following steps to make hard copies of the FPTRQ measures short forms:

- Determine the number of each type of measure you will need from the OPRE website.
- You will probably want to print a few extras of the short forms in case needed for any reasons.

When using the short forms with multiple providers or teachers, a linked ID system should be used so that provider/teacher measures are linked to the parent measures from their classroom. This would be true within or across centers/programs.

## 3.2 Using the Excel Scoring Sheets

Excel scoring sheets for the provider/teacher and parent measures short forms are available to automatically calculate construct and subscale scores. The following steps describe how to use the Excel scoring sheets. You will need the Excel software program on your computer to use the FPTRQ scoring sheets.

- Excel scoring sheets for the provider/teacher and parent measures short forms (English and Spanish) are available on the OPRE website at <http://www.acf.hhs.gov/programs/opre/research/project/development-of-a-measure-of-family-and-provider-teacher-relationship-quality-fptrq>. Download and save the scoring sheets on your computer.
- For each completed short form, enter the responses in the corresponding Excel scoring sheet under the assigned ID. You must use the item response codes shown on the following page when entering responses for each item into the Excel scoring sheet.
- When a response code is entered into the scoring sheet, construct and subscale scores will automatically be calculated for each short form.
- Enter responses for all providers/teachers within the same program (with the same program ID) into the same provider/teacher scoring sheet. If you are using the short forms with providers or teachers at multiple programs, a different provider/teacher short form Excel scoring sheet should be used for each program, and then the file can be named with the program ID.
- Enter responses for all parents of children cared for by the same provider/teacher (with the same provider/teacher ID) into the same parent scoring sheet. If you are using the short forms with multiple providers/teachers, a different parent short form scoring sheet should be used for each provider or teacher.
- Once the measure data are entered in the Excel sheets, the data can be uploaded to other analysis software, such as Statistical Package for the Social Sciences (SPSS) or Statistical Analysis System (SAS), to conduct more detailed analyses.



The FPTRQ measures contain several types of response categories that respondents can choose from. The following coding scheme must be used to enter responses into the Excel scoring sheets to ensure correct scoring.

Response	Never	Rarely	Sometimes	Very often
Code	1	2	3	4

Response	None	Some	Most	All
Code	1	2	3	4

Response	Strongly disagree	Disagree	Agree	Strongly agree
Code	1	2	3	4

Response	Very uncomfortable	Uncomfortable	Comfortable	Very comfortable
Code	1	2	3	4

Response	Not at all like my provider	A little like my provider	A lot like my provider	Exactly like my provider
Code	1	2	3	4

Response	Yes	No
Code	1	0

It is important to note that because the provider/teacher and parent measures short forms have fewer items than the full measures, subscale and total scores for the short forms have a narrower range and a lower total score compared to the full measures. For example, for the Collaboration subscale in the parent measure short form, the range of the subscale score is between 4 and 16 and therefore the highest total subscale score is 16. However, for the Collaboration subscale in the parent full measure, the range of the subscale score is between 11 and 44 and the highest total subscale score. When interpreting the scores, higher subscale and total scores on both the provider/teacher and parent measures short forms mean better provider/teacher-parent relationship quality, as is the case for the full measures. Additional information on scoring is available in Chapter 5 of the *Family and Provider/Teacher Relationship Quality Measures: User's Manual*.

### 3.3 Reverse-coded Items

Depending on the item, a response can have either a positive or negative connotation. For example, a response of ‘Strongly agree’ to the statement ‘I teach and care for children because I enjoy it’ has a positive connotation, while a response of ‘Strongly agree’ to the statement ‘I see this job as just a paycheck’ has a negative connotation. For scores to be calculated correctly, all responses need to be scored so that positive responses have the same codes and negative responses have the same codes. Therefore, in this example, for the item ‘I teach and care for children because I enjoy it,’ the ‘Strongly agree’ response is coded as a ‘4.’

However, for the item ‘I see this job as just a paycheck,’ the ‘Strongly agree’ response is coded as a ‘1.’ This is called “reverse-coding.”

The Excel scoring sheets are programmed to automatically compute reverse-coded items, and you should just enter the original responses into the scoring sheet. However, if you are planning to use a statistical package, such as SAS or SPSS, you may need to take necessary steps to reverse the codes for the items shown below in table 3-1. Note that the FPTRQ measures short forms use the following conventions to easily identify the item numbers for each form: SPROVQ for items in the provider/teacher measure short form; and SPARQ for items in the parent measure short form.

**Table 3-1. Reverse-coded items**

FPTRQ measures short forms	Reverse-coded items
Provider/Teacher Measure Short Form .....	SPROVQ6a, SPROVQ6b, SPROVQ6c, SPROVQ7b
Parent Measure Short Form.....	SPARQ5b, SPARQ5d, SPARQ5e, SPARQ6a, SPARQ6b, SPARQ6c

NOTE: Recode 1=4; 2=3; 3=2; and 4=1.

# Technical Information and Limitations of the FPTRQ Measures Short Forms

# 4

This section describes technical information about the short forms as well as the limitations of the FPTRQ measures short forms.

## 4.1 Reliability of the FPTRQ Measures Short Forms

The FPTRQ field study sample included a variety of ECE programs (Head Start, Early Head Start, center based programs, and family child care), providers/teachers, and parents with diverse characteristics and backgrounds. The respondents completed the FPTRQ full measures during the field study, and that data were used to calculate reliability of the provider/teacher and parent measures short forms.

The FPTRQ provider/teacher and parent measures short forms include multiple subscales under the three broader constructs of Knowledge, Attitudes, and Practices. Cronbach's alphas were computed to determine internal consistency reliability of each subscale and construct. Cronbach's alphas increase as the inter-correlations among measure items increase, indicating the degree to which a set of items measures a single construct. General guidelines for interpreting Cronbach's alphas ( $\alpha$ ) include the following (George & Mallery, 2003; Kline, 2000):

$\alpha \geq 0.9$  – Excellent;

$0.7 \leq \alpha < 0.9$  – Good;

$0.6 \leq \alpha < 0.7$  – Acceptable;

$0.5 \leq \alpha < 0.6$  – Poor; and

$\alpha < 0.5$  – Unacceptable.

**Reliability of the provider/teacher measure short form.** The provider/teacher measure short form includes seven subscales under three broad constructs. As shown in the tables 4-1, 4-2, 4-3, and 4-4, most of the subscales among three program types and across respondent characteristics show at least acceptable, and mostly good or excellent, reliabilities. Only a few subscales show poor reliabilities, generally due to a lack of variation among responses (almost all the provider/teachers responded to the item with a 3 or 4).

**Table 4-1. Cronbach’s alpha of the provider/teacher measure short form, by program type**

Provider/teacher measure short form	# Items	Center-based		Head Start/ Early Head Start		Family child care	
		# Cases	$\alpha$	# Cases	$\alpha$	# Cases	$\alpha$
Construct: Knowledge .....	5	226	.88	97	.84	92	.82
Subscale: Family-specific Knowledge .....	5	226	.88	97	.84	92	.82
Construct: Practice .....	9	223	.84	97	.75	89	.85
Subscale: Collaboration .....	3	227	.84	100	.75	92	.87
Subscale: Responsiveness .....	3	229	.75	100	.66	92	.85
Subscale: Communication .....	3	226	.76	97	.62	91	.81
Construct: Attitude .....	9	221	.70	98	.67	91	.64
Subscale: Commitment.....	3	229	.67	100	.56	93	.65
Subscale: Openness to Change .....	3	224	.63	98	.63	91	.62
Subscale: Respect.....	3	228	.74	100	.71	93	.80

SOURCE: Analysis of data from the FPTRQ Provider/Teacher Measure, Field Study conducted in spring 2014.

**Table 4-2. Cronbach’s alpha of the provider/teacher measure short form, by education**

Provider/teacher measure short form	# Items	High school diploma or less		Some college or associates’ degree		Bachelor’s or graduate degree	
		# Cases	$\alpha$	# Cases	$\alpha$	# Cases	$\alpha$
Construct: Knowledge .....	5	57	.91	196	.86	160	.83
Subscale: Family-specific Knowledge .....	5	57	.91	196	.86	160	.83
Construct: Practice .....	9	54	.89	194	.82	159	.82
Subscale: Collaboration .....	3	57	.89	198	.83	162	.85
Subscale: Responsiveness .....	3	57	.79	199	.79	163	.62
Subscale: Communication .....	3	56	.81	196	.74	160	.76
Construct: Attitude .....	9	56	.73	195	.68	157	.67
Subscale: Commitment.....	3	57	.83	200	.56	163	.67
Subscale: Openness to Change .....	3	57	.59	196	.63	158	.66
Subscale: Respect.....	3	58	.79	199	.78	162	.69

SOURCE: Analysis of data from the FPTRQ Provider/Teacher Measure, Field Study conducted in spring 2014.

**Table 4-3. Cronbach’s alpha of the provider/teacher measure short form, by CDA**

Provider/teacher measure short form	# Items	Has CDA		No CDA	
		# Cases	$\alpha$	# Cases	$\alpha$
Construct: Knowledge .....	5	181	.88	230	.83
Subscale: Family-specific Knowledge .....	5	181	.88	230	.83
Construct: Practice .....	9	179	.84	226	.83
Subscale: Collaboration .....	3	182	.85	233	.85
Subscale: Responsiveness .....	3	184	.72	233	.76
Subscale: Communication .....	3	182	.77	228	.75
Construct: Attitude .....	9	182	.69	224	.68
Subscale: Commitment .....	3	185	.58	233	.68
Subscale: Openness to Change .....	3	183	.66	226	.60
Subscale: Respect .....	3	184	.75	233	.76

SOURCE: Analysis of data from the FPTRQ Provider/Teacher Measure, Field Study conducted in spring 2014.

**Table 4-4. Cronbach’s alpha of the provider/teacher measure short form, by race/ethnicity**

Provider/teacher measure short form	# Items	White		Black or African American		Hispanic or Latino		All other races	
		# Cases	$\alpha$	# Cases	$\alpha$	# Cases	$\alpha$	# Cases	$\alpha$
Construct: Knowledge .....	5	153	.84	127	.84	84	.89	51	.89
Subscale: Family-specific Knowledge .....	5	153	.84	127	.84	84	.89	51	.89
Construct: Practice .....	9	152	.81	125	.82	80	.88	52	.87
Subscale: Collaboration .....	3	157	.80	129	.83	81	.91	52	.88
Subscale: Responsiveness .....	3	157	.71	128	.75	84	.83	52	.69
Subscale: Communication .....	3	154	.71	125	.70	83	.80	52	.90
Construct: Attitude .....	9	152	.70	124	.69	82	.67	52	.70
Subscale: Commitment.....	3	158	.59	129	.61	83	.74	52	.54
Subscale: Openness to Change .....	3	153	.68	125	.52	83	.52	52	.75
Subscale: Respect.....	3	157	.78	128	.74	84	.73	52	.78

SOURCE: Analysis of data from the FPTRQ Provider/Teacher Measure, Field Study conducted in spring 2014.

**Reliability of the parent measure short form.** The parent measure short form includes eight subscales under the three broader constructs of Knowledge, Practice, and Attitude, as shown in tables 4-5, 4-6, 4-7, 4-8, and 4-9. All of the subscales among three program types and across respondent characteristics show at least acceptable, and mostly good or excellent, reliabilities.

**Table 4-5. Cronbach’s alpha of the parent measure short form, by program type**

Provider/teacher measure short form	# Items	Center-based		Head Start/ Early Head Start		Family child care	
		# Cases	$\alpha$	# Cases	$\alpha$	# Cases	$\alpha$
Construct: Knowledge .....	3	619	.78	282	.79	257	.83
Subscale: Family-specific Knowledge .....	3	619	.78	282	.79	257	.83
Construct: Practice .....	13	595	.91	275	.87	249	.88
Subscale: Collaboration .....	4	621	.89	281	.82	256	.85
Subscale: Responsiveness .....	3	625	.78	283	.75	258	.84
Subscale: Communication .....	3	622	.77	283	.71	259	.75
Subscale: Family-focused Concern.....	3	616	.77	282	.74	255	.65
Construct: Attitude .....	9	615	.81	274	.83	253	.82
Subscale: Commitment .....	3	627	.83	285	.79	261	.73
Subscale: Understanding Context .....	3	628	.95	282	.98	256	.96
Subscale: Respect .....	3	624	.84	277	.84	258	.83

SOURCE: Analysis of data from the FPTRQ Parent Measure, Field Study conducted in spring 2014.

**Table 4-6. Cronbach’s alpha of the parent measure short form, by language**

Parent measure short form	# Items	English		Spanish	
		# Cases	$\alpha$	# Cases	$\alpha$
Construct: Knowledge .....	3	1,070	.80	88	.75
Subscale: Family-specific Knowledge .....	3	1,070	.80	88	.75
Construct: Practice .....	13	1,037	.90	82	.92
Subscale: Collaboration .....	4	1,070	.88	88	.90
Subscale: Responsiveness .....	3	1,076	.79	90	.80
Subscale: Communication .....	3	1,074	.76	90	.83
Subscale: Family-focused Concern.....	3	1,067	.75	86	.74
Construct: Attitude.....	9	1,057	.82	85	.79
Subscale: Commitment .....	3	1,082	.79	91	.87
Subscale: Understanding Context .....	3	1,076	.96	90	.97
Subscale: Respect .....	3	1,074	.85	85	.77

SOURCE: Analysis of data from the FPTRQ Parent Measure, Field Study conducted in spring 2014.

**Table 4-7. Cronbach’s alpha of the parent measure short form, by education**

Parent measure short form	# Items	High school diploma or less		Some college or associate’s degree		Bachelor’s or graduate degree	
		# Cases	$\alpha$	# Cases	$\alpha$	# Cases	$\alpha$
Construct: Knowledge .....	3	282	.84	409	.76	462	.79
Subscale: Family-specific Knowledge .....	3	282	.84	409	.76	462	.79
Construct: Practice .....	13	270	.91	396	.89	450	.90
Subscale: Collaboration .....	4	282	.88	407	.86	465	.88
Subscale: Responsiveness .....	3	285	.79	413	.78	463	.79
Subscale: Communication .....	3	287	.81	409	.75	463	.72
Subscale: Family-focused Concern.....	3	282	.77	406	.74	461	.75
Construct: Attitude.....	9	281	.86	403	.79	456	.77
Subscale: Commitment .....	3	289	.88	413	.78	467	.76
Subscale: Understanding Context .....	3	289	.97	411	.96	462	.95
Subscale: Respect .....	3	283	.89	408	.82	466	.76

SOURCE: Analysis of data from the FPTRQ Parent Measure, Field Study conducted in spring 2014.

**Table 4-8. Cronbach’s alpha of the parent measure short form, by race/ethnicity**

Parent measure short form	# Items	White		Black or African American		Hispanic or Latino		All other races	
		# Cases	$\alpha$	# Cases	$\alpha$	# Cases	$\alpha$	# Cases	$\alpha$
Construct: Knowledge .....	3	406	.78	344	.81	266	.78	142	.83
Subscale: Family-specific Knowledge .....	3	406	.78	344	.81	266	.78	142	.83
Construct: Practice .....	13	393	.90	333	.89	253	.91	140	.90
Subscale: Collaboration.....	4	407	.87	343	.87	266	.87	142	.87
Subscale: Responsiveness .....	3	407	.79	345	.78	268	.76	146	.84
Subscale: Communication .....	3	405	.75	345	.70	269	.79	145	.78
Subscale: Family-focused Concern.....	3	405	.74	341	.77	263	.77	146	.69
Construct: Attitude.....	9	404	.77	341	.83	259	.82	138	.82
Subscale: Commitment .....	3	411	.78	347	.85	271	.87	144	.63
Subscale: Understanding Context .....	3	407	.92	344	.96	271	.97	144	.97
Subscale: Respect .....	3	412	.80	346	.83	260	.83	141	.89

SOURCE: Analysis of data from the FPTRQ Parent Measure, Field Study conducted in spring 2014.

**Table 4-9. Cronbach’s alpha of the parent measure short form, by household income**

Parent measure short form	# Items	Less than \$25,000		\$25,000–\$44,999		\$45,000–\$74,999		\$75,000 or more	
		# Cases	$\alpha$	# Cases	$\alpha$	# Cases	$\alpha$	# Cases	$\alpha$
Construct: Knowledge .....	3	402	.81	283	.76	148	.84	310	.78
Subscale: Family-specific Knowledge .....	3	402	.81	283	.76	148	.84	310	.78
Construct: Practice .....	13	388	.90	277	.90	142	.88	300	.90
Subscale: Collaboration .....	4	403	.87	282	.85	146	.88	314	.88
Subscale: Responsiveness .....	3	409	.79	285	.79	146	.85	311	.74
Subscale: Communication .....	3	408	.78	284	.78	148	.73	309	.69
Subscale: Family-focused Concern.....	3	403	.76	282	.76	146	.74	308	.75
Construct: Attitude.....	9	401	.83	278	.82	143	.81	307	.77
Subscale: Commitment .....	3	414	.85	284	.79	147	.80	314	.76
Subscale: Understanding Context .....	3	410	.95	284	.97	146	.99	311	.92
Subscale: Respect .....	3	404	.86	281	.81	147	.84	314	.78

SOURCE: Analysis of data from the FPTRQ Parent Measure, Field Study conducted in spring 2014.

In summary, almost all of the reliabilities of the provider/teacher and parent measures short forms fall in the acceptable range, with most of them in the good or excellent ranges. However, a few reliability estimates for the provider/teacher measure short form are lower than most of the others, due largely to a lack of variation among responses (almost all of the providers/teachers responded to the item with a 3 or 4). The same items in the subscales in the provider/teacher full measure also show lower reliability estimates than other subscale reliability estimates.

## 4.2 Limitations of the FPTRQ Measures Short Forms

The FPTRQ measures short forms have two major limitations that need to be considered prior to their use and subsequent interpretation of resulting data.

- First, dropping items from the FPTRQ full measures decreases the coverage of each construct and subscale. Specifically, subscales that have fewer items constrict the conceptual coverage by collecting fewer points of data (i.e., items) about a narrower range of possible indicators of a construct.
- Second, the short forms have not been tested in their current format. They were created using secondary data analyses using the data from the FPTRQ full measures collected in the FPTRQ field study. Therefore, we have not confirmed how the FPTRQ measures short forms would perform if they were administered. For example, the question ordering in the FPTRQ measures short forms is different because some of the items in the FPTRQ full measures were dropped. The response effect of item ordering has not been tested.



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**Appendix A.**  
**Confirmatory Factor Analyses Statistics for the**  
**Provider/Teacher and Parent Measures**

**Table A-1. Provider/teacher measure CFA fit statistics and generally accepted standards**

	Chi-sq / DF	CFI	SRMSR	RMSEA	NNFI
<b>Standard</b>	<b>&lt; 2</b>	<b>&gt;= .95</b>	<b>&lt;= .05</b>	<b>&lt;= .06</b>	<b>&gt;= .95</b>
Full measure	3218/1203 = 2.7	.77	.036	.067	.758
Short form	423/188 = 2.25	.94	.052	.056	.894

**Table A-2. Parent measure CFA fit statistics and generally accepted standards**

	Chi-sq / DF	CFI	SRMSR	RMSEA	NNFI
<b>Standard</b>	<b>&lt; 2</b>	<b>&gt;= .95</b>	<b>&lt;= .05</b>	<b>&lt;= .06</b>	<b>&gt;= .95</b>
Full measure	9716/2145 = 4.53	.840	.059	.061	.836
Short form	891/247 = 3.6	.957	.042	.049	.942

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**Appendix B.**  
**FPTRQ Provider/Teacher Measure Items for Subscales**

<b>Subscale: Family-Specific Knowledge</b>	<b>Full measure</b>	<b>Short form</b>
I know if children have siblings	PROVQ3a.	-
I know if children have other adult relatives living in their households	PROVQ3b.	-
I know their parents' schedules	PROVQ3c.	-
I know the marital status of children's parents	PROVQ3d.	-
I know the parenting styles of children's parents	PROVQ3e.	SPROVQ2a.
I know the employment status of children's parents	PROVQ3f.	-
I know their financial situation	PROVQ3g.	-
I know the role that faith and religion play in children's households	PROVQ3h.	SPROVQ2b.
I know their cultures and values	PROVQ3i.	SPROVQ2c.
I know what their families do outside of the education and care setting to encourage their children's learning	PROVQ3j.	SPROVQ2d.
I know how parents discipline their child	PROVQ3k.	SPROVQ2e.
I know changes happening at home	PROVQ3l.	-
Total	12	5

<b>Subscale: Collaboration</b>	<b>Full measure</b>	<b>Short form</b>
Since September, how often have you met with or talked to parents about their child's experiences in the education and care setting	PROVQ1a.	-
Since September, how often have you met with or talked to parents about their child's abilities	PROVQ1b.	-
Since September, how often have you met with or talked to parents about their child's learning	PROVQ1c.	-
Since September, how often have you met with or talked to parents about problems their child is having in the education and care setting	PROVQ1d.	-
Since September, how often have you met with or talked to parents about what to expect at each stage of their child's development?	PROVQ1e.	-
Since September, how often have you met with or talked to parents about how their child is progressing towards developmental milestones	PROVQ1f.	-
Since September, how often have you met with or talked to parents about goals parents have for their child	PROVQ1g.	SPROVQ1a.
Since September, how often have you met with or talked to parents about how their child is progressing towards the parents' goals	PROVQ1h.	SPROVQ1c.
Since September, how often have you met with or talked to parents about your expectations for the children in your care	PROVQ2a.	SPROVQ1b.
Since September, how often have you met with or talked to parents about the rules you have for children in your care	PROVQ2b.	-
Since September, how often have you met with or talked to parents about how you feel about the education and care you provide	PROVQ2c.	-
Since September, how often have you been able to share information with parents about their children's day	PROVQ4a.	-
Since September, how often have you been able to suggest activities for parents and children to do together	PROVQ4c.	-
How often are you able to answer parents' questions when they come up	PROVQ5a.	-
How often are you able to work with parents to develop strategies they can use at home to support their child's learning and development	PROVQ5b.	-
Total	15	3

<b>Subscale: Responsiveness</b>	<b>Full measure</b>	<b>Short form</b>
Part of my job is to help families get services available in the community	PROVQ10a.	SPROVQ8a.
Part of my job is to offer parents information about community events	PROVQ10b.	SPROVQ8b.
Part of my job is to respond to issues or questions outside of normal care hours	PROVQ10c.	SPROVQ8c.
Part of my job is to change my work schedule in response to parents' work or school schedule	PROVQ10d.	-
Total	4	3

<b>Subscale: Communication</b>	<b>Full measure</b>	<b>Short form</b>
Since September, how often have you been able to offer parents books and materials on parenting	PROVQ4b.	-
How often are you able to set goals with parents for their child	PROVQ5c.	SPROVQ3a.
How often are you able to offer parents ideas or suggestions about parenting	PROVQ5d.	SPROVQ3b.
How often are you able to provide parents the opportunity to give feedback about your performance	PROVQ5e.	SPROVQ3c.
Total	4	3

<b>Subscale: Commitment</b>	<b>Full measure</b>	<b>Short form</b>
I teach and care for children because I enjoy it	PROVQ9a.	SPROVQ7a.
I see this job as just a paycheck ( <i>reverse-scored</i> )	PROVQ9b.	SPROVQ7b.
I teach and care for children because I like being around children	PROVQ9c.	SPROVQ7c.
If I could find something else to do to make a living I would ( <i>reverse-scored</i> )	PROVQ9d.	-
Total	4	3

<b>Subscale: Openness to Change</b>	<b>Full measure</b>	<b>Short form</b>
I am open to using information on new and better ways to teach and care for children	PROVQ6a.	-
I encourage parents to provide feedback on my care and teaching practices	PROVQ6b.	SPROVQ4a.
I encourage parents to make decisions about their children's education and care	PROVQ6c.	SPROVQ4b.
Even though my professional or moral viewpoints may differ, I accept that parents are the ultimate decision makers for the care and education of their children	PROVQ6d.	-
When planning activities for children in your program, how often are you able to take into account information parents share about their children	PROVQ7a.	SPROVQ5
When planning activities for children in your program, how often are you able to take into account families' values and cultures	PROVQ7b.	-
Part of my job is to learn new ways to teach and care for children	PROVQ10e.	-
Part of my job is to change activities offered to children in response to families' feedback	PROVQ10f.	-
Total	8	3

<b>Subscale: Respect</b>	<b>Full measure</b>	<b>Short form</b>
Sometimes it is hard for me to support the way parents raise their children ( <i>reverse-scored</i> )	PROVQ8a.	SPROVQ6a.
Sometimes it is hard for me to support the way parents discipline their children ( <i>reverse-scored</i> )	PROVQ8b.	SPROVQ6b.
Sometimes it is hard for me to support the goals parents have for their children ( <i>reverse-scored</i> )	PROVQ8c.	-
Sometimes it is hard for me to work with parents who do not share my beliefs ( <i>reverse-scored</i> )	PROVQ8d.	SPROVQ6c.
Total	4	3

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## Appendix C. FPTRQ Parent Measure Items for Subscales

<b>Subscale: Family-Specific Knowledge</b>	<b>Full measure</b>	<b>Short form</b>
How comfortable would or do you feel sharing with your childcare provider or teacher if your child has siblings	PARQ3a.	-
How comfortable would or do you feel sharing with your childcare provider or teacher if you have other adult relatives living in your household	PARQ3b.	-
How comfortable would or do you feel sharing with your childcare provider or teacher your household schedule	PARQ3c.	-
How comfortable would or do you feel sharing with your childcare provider or teacher your marital status	PARQ3d.	-
How comfortable would or do you feel sharing with your childcare provider or teacher your personal relationship with a spouse or partner	PARQ3e.	-
How comfortable would or do you feel sharing with your childcare provider or teacher your employment status	PARQ3f.	-
How comfortable would or do you feel sharing with your childcare provider or teacher your financial situation	PARQ3g.	-
How comfortable would or do you feel sharing with your childcare provider or teacher your family life	PARQ3h.	SPARQ2a.
How comfortable would or do you feel sharing with your childcare provider or teacher the role that faith and religion play in your household	PARQ3i.	SPARQ2b.
How comfortable would or do you feel sharing with your childcare provider or teacher your family's culture and values	PARQ3j.	-
How comfortable would or do you feel sharing with your childcare provider or teacher what you do outside of the education and care setting to encourage your child's learning	PARQ3k.	-
How comfortable would or do you feel sharing with your childcare provider or teacher how you discipline your child	PARQ3l.	-
How comfortable would or do you feel sharing with your childcare provider or teacher problems your child is having at home	PARQ3m.	-
How comfortable would or do you feel sharing with your childcare provider or teacher changes happening at home	PARQ3n.	SPARQ2c.
How comfortable would or do you feel sharing with your childcare provider or teacher health issues your child has such as food allergies or asthma	PARQ3o.	-
Total	15	3

<b>Subscale: Collaboration</b>	<b>Full measure</b>	<b>Short form</b>
Since September, how often have you met with or talked to your childcare provider or teacher about your child's experiences in the education and care setting	PARQ1a.	-
Since September, how often have you met with or talked to your childcare provider or teacher about your child's abilities	PARQ1b.	-
Since September, how often have you met with or talked to your childcare provider or teacher about your child's general behavior	PARQ1c.	-
Since September, how often have you met with or talked to your childcare provider or teacher about your child's learning	PARQ1d.	-
Since September, how often have you met with or talked to your childcare provider or teacher about goals you have for your child	PARQ1e.	SPARQ1a.
Since September, how often have you met with or talked to your childcare provider or teacher about what to expect at each stage of your child's development	PARQ1f.	SPARQ1b.
Since September, how often have you met with or talked to your childcare provider or teacher about your vision for your child's future	PARQ1g.	SPARQ1c.
Since September, how often have you met with or talked to your childcare provider or teacher about your provider's expectations for your child	PARQ2a.	-
Since September, how often have you met with or talked to your childcare provider or teacher about the rules your provider has for children in his or her care	PARQ2b.	-
Since September, how often have you met with or talked to your childcare provider or teacher about how you feel about the care and education your child receives	PARQ2c.	SPARQ1d.
How often does your childcare provider or teacher share information with you about your child's day	PARQ4a.	-
Total	11	4

<b>Subscale: Responsiveness</b>	<b>Full measure</b>	<b>Short form</b>
My childcare provider or teacher respects me as a parent	PARQ6a.	-
My childcare provider or teacher is flexible in response to my work or school schedule	PARQ6b.	-
My childcare provider or teacher treats me like an expert on my child	PARQ6c.	-
My childcare provider or teacher tells me how my child is progressing towards goals or developmental milestones	PARQ6d.	-
My childcare provider or teacher uses my feedback to adjust the education and care provided to my child	PARQ6e.	SPARQ4a.
My childcare provider or teacher encourages me to be involved in all aspects of my child's care and education	PARQ6f.	-
My childcare provider or teacher reflects the cultural diversity of students in activities	PARQ6h.	SPARQ4b.
My childcare provider or teacher shows respect for different ethnic heritages	PARQ6i.	-
My childcare provider or teacher is respectful of religious beliefs	PARQ6j.	-
My childcare provider or teacher encourages parents to provide feedback on the way he/she cares for and teaches children	PARQ6k.	-
My childcare provider or teacher communicates the cultural values and beliefs I want my child to have	PARQ6l.	SPARQ4c.
Total	11	3

<b>Subscale: Communication</b>	<b>Full measure</b>	<b>Short form</b>
How often does your childcare provider or teacher offer you books or materials on parenting	PARQ4b.	SPARQ3a.
How often does your childcare provider or teacher suggest activities for you and your child to do together	PARQ4c.	-
How often does your childcare provider or teacher ask you about the cultural values and beliefs you want him/her to communicate to your child	PARQ4d.	SPARQ3b.
How often does your childcare provider or teacher work with you to develop strategies you can use at home to support your child's learning and development	PARQ5b.	-
How often does your childcare provider or teacher listen to your ideas about ways to change or improve the care and education your child receives	PARQ5c.	-
How often does your childcare provider or teacher offer you ideas or suggestions about parenting	PARQ5d.	-
How often does your childcare provider or teacher provide you with opportunities to make decisions about your child's education and care	PARQ5e.	-
How often does your childcare provider or teacher provide you with opportunities to give feedback on his or her performance	PARQ5f.	SPARQ3d.
Total	8	3

<b>Subscale: Family-focused Concern</b>	<b>Full measure</b>	<b>Short form</b>
How often does your childcare provider or teacher ask about your family	PARQ5a.	SPARQ3c.
How often does your childcare provider or teacher remember personal details about your family when speaking with you	PARQ5g.	SPARQ3e.
My childcare provider or teacher asks me questions to show he/she cares about my family	PARQ6g.	SPARQ4d.
Total	3	3

<b>Subscale: Commitment</b>	<b>Full measure</b>	<b>Short form</b>
My childcare provider or teacher is caring	PARQ7a.	-
My childcare provider or teacher is understanding	PARQ7b.	SPARQ5a.
My childcare provider or teacher is flexible	PARQ7d.	-
My childcare provider or teacher is dependable	PARQ7e.	SPARQ5c.
My childcare provider or teacher is trustworthy	PARQ7f.	-
My childcare provider or teacher is respectful	PARQ7i.	-
My childcare provider or teacher is available	PARQ7k.	SPARQ5f.
I trust that my childcare provider or teacher can maintain a safe environment for my child	PARQ8a.	-
I trust that my childcare provider or teacher has my child's best interest at heart	PARQ8b.	-
Total	9	3

<b>Subscale: Understanding Context</b>	<b>Full measure</b>	<b>Short form</b>
My childcare provider or teacher judges my family because of our faith and religion ( <i>reverse-scored</i> )	PARQ9a.	SPARQ6a.
My childcare provider or teacher judges my family because of our culture and values ( <i>reverse-scored</i> )	PARQ9b.	SPARQ6b.
My childcare provider or teacher judges my family because of our race/ethnicity ( <i>reverse-scored</i> )	PARQ9c.	-
My childcare provider or teacher judges my family because of our financial situation ( <i>reverse-scored</i> )	PARQ9d.	SPARQ6c.
Total	4	3

<b>Subscale: Respect</b>	<b>Full measure</b>	<b>Short form</b>
How often does your childcare provider or teacher contradict you in front of your child	PARQ5h.	-
My childcare provider or teacher is rude ( <i>reverse-scored</i> )	PARQ7c.	SPARQ5b.
My childcare provider or teacher is impatient ( <i>reverse-scored</i> )	PARQ7g.	SPARQ5d.
My childcare provider or teacher is unfriendly ( <i>reverse-coded</i> )	PARQ7h.	-
My childcare provider or teacher is judgmental ( <i>reverse-scored</i> )	PARQ7j.	SPARQ5e.
Total	5	3