

Competencies of Infant and Toddler Teachers and Caregivers: A Compendium of Measures



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COMPETENCIES OF INFANT AND TODDLER TEACHERS AND CAREGIVERS: A COMPENDIUM OF MEASURES

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I. INTRODUCTION

The first three years of a child’s life are a distinct developmental period, characterized by rapid brain development, reliance on relationships with adults, and extreme responsiveness to environmental variation (Bernier et al. 2012; Horm et al. 2016; Martin et al. 2013; National Scientific Council on the Developing Child 2004). Research shows that high quality infant/toddler (I/T) programs can support positive outcomes for all children, especially those from disadvantaged backgrounds (Administration for Children and Families 2006; Aikens et al. 2015a; Aikens et al. 2015b; Li et al. 2013; Love et al. 2013; Yazejian et al. 2017). The quality of care that children receive as infants and toddlers has long-term effects (Vandell et al. 2010). Yet little information is available about the specific competencies (including knowledge, skills, and attributes) that are essential to the practice of teaching and caring for infants and toddlers and that are needed to support children’s optimal development. Identifying the competencies essential to I/T teaching and caregiving may offer a common language and lens for assessing job performance and provide a clear structure for professional growth and development.

In 2017, the Office of Planning, Research, and Evaluation (OPRE) in the Administration for Children and Families (ACF) funded Mathematica to conduct the Infant and Toddler Teacher and Caregiver Competencies (ITTCC) project. The project aims to examine existing efforts across states, institutions of higher education, professional organizations, and early care and education (ECE) programs related to competencies for I/T teachers and caregivers who work in group settings and build a conceptual foundation to inform future measurement, research, and evaluation. Box 1 defines key terms as operationalized for the ITTCC project; these definitions were developed in consultation with experts from industrial-organizational psychology as well as I/T care and education.

To date, the ITTCC project has conducted the following:

- A [scan of existing competency frameworks](#), to examine approaches to implementation and assessment as well as alignment across various competency frameworks.
- A [literature review](#) examine and depict the associations between competencies and key program, teacher/caregiver, family, and child outcomes.
- An examination of other fields that have successfully developed and implemented competency frameworks, to identify key lessons that can be applied to I/T care and education

In this compendium, we describe the results of a scan of competency-aligned measures. The purpose of this compendium is to offer the early childhood education field a sense of existing options for assessing competencies for I/T teachers and caregivers who work in group care settings (centers and family child care homes). The measures included in this compendium were identified through prior activities undertaken for the ITTCC project, including the scan of existing competency frameworks and the literature review, and based on additional expert input. For each measure, we developed a profile that includes key information about the focus of the

measure and how it has been or can be used. Although these profiles are not exhaustive, they include important information about the specific competencies the measures address and how they have been used to assess the competencies of I/T teachers and caregivers.

Box 1. Key Definitions

The ITTCC project has defined competency, competency framework, proficiency levels, measure, and rubric as follows:

Competency: a piece of knowledge (K), a skill (S), or an attribute (A) essential to the practice of teaching and caring for infants and toddlers.

- Knowledge is information that may be applied to practice.
- Skills are strategies or abilities that may be applied to practice.
- Attributes are attitudes, beliefs, or other characteristics that may influence the application of knowledge and skills to practice.

Competency framework: a compilation of competencies (that is, KSAs).

Proficiency levels: Some competency frameworks identify competencies (that is, KSAs) that are essential for practice at various career stages (for example, entry, mid-career, advanced).

Measure: a tool that can be used to assess competencies (that is, KSAs) essential to the practice of teaching and caring for infants and toddlers.

Rubric: A scoring guide that communicates expectations on competencies at increasing levels of proficiency.

II. APPROACH

The scan of measures consisted of three stages: (1) identifying existing measures, (2) documenting readily available information on measures, and (3) conducting additional targeted searches and summarizing information in profiles created for each measure.

Stage 1: Identifying existing measures

In stage 1, we compiled a list of measures from work conducted in previous tasks for this project. In the first task—the scan of existing competency frameworks—we gathered and reviewed existing frameworks relevant for I/T teachers and caregivers; this included documenting information on assessments associated with those frameworks. In the second task—a literature review—we reviewed studies examining associations between I/T teacher or caregiver competencies and key program, teacher/caregiver, family, and child outcomes. As part of that task, we documented information on measures used to examine associations between competencies and outcomes. We also asked expert consultants to review the initial measures list and make additional recommendations for measures to include.

Based on this process, we identified 66 measures to move to the next stage of review. Some measures were identified by more than one source. Of these 66 measures:

- Nine measures were developed in alignment with state-specific competency frameworks, and address the full range of competencies included in those frameworks.
- Five measures were developed in alignment with competency frameworks developed by professional organizations and address the full range of competencies included in those frameworks.
- Thirteen measures were either used in full or adapted to assess a set of competencies developed by a collaborative of university-based child development experts for pre-service teachers and caregivers to work effectively with infants, toddlers, and their families.
- Twenty-seven measures were included in research studies that were identified in the ITTCC literature review, and were used to assess I/T teacher or caregiver competencies in studies examining associations between teacher and caregiver competencies, and child, family, teacher or caregiver, classroom, and/or program outcomes.
- Seventeen measures were recommended by ITTCC expert advisors.

Stage 2: Documenting readily available information

In stage 2, we started by developing a list of fields to document information for each measure (Table II.1). We were aware that not all information would be available for each measure, but we wanted to include it to the extent possible.

Table II.1. Information to document for each measure

Key characteristics	Response categories/information required
Measure(s)	Name, acronym, in-text or full citation (if available)
Administration mode	Indicate the mode of assessment
Whom has the measure been used to assess?	Indicate whom the measure is designed for and used with (I/T teachers or Early Childhood Teachers)
Who conducts the assessment?	Indicate whether the assessment is conducted by self or an independent evaluator (for example, observer, assessor)
Whether K, S, or A examined	Indicate whether K, S, or A examined
Specific K, S, or A assessed	Identify specific K, S, or A assessed by the measure as conceptualized by the measure developer
Reliability and validity	Describe evidence of the measure's reliability and validity
Type of setting (sample)	Indicate the types of settings with which the measure has been used: Center classrooms; Family Child Care homes; Early Head Start; Head Start (home visiting not included in scope)
Purpose of measure	Describe whether the measure has been used for formative or summative purposes, caregivers receive a credential based on the measure, the measure has been used for professional development, or the measure has been used for research purposes
Who is using the measure?	Indicate who is using the measure (for example, states, organizations)
Original use	Indicate whether the measure is being used as originally designed or has been adapted for use with I/T educators
Used alone or in a battery of measures?	Indicate whether the measure is used alone or part of a battery. Are subscales/items being used apart from the whole?
Levels of proficiency	Describe whether and how the measure (in items or in scoring of items) differentiates levels of proficiency
Measure cost	Indicate the cost of administering the measure
Administration time	Indicate how long it takes to complete the measure
Administration and scoring procedures	Describe procedures for administering and scoring the measure
Training requirements	Indicate required training requirements to use the measure

K = knowledge; S = skill; A = attribute.

Once the list of fields was final, we sought information about each measure. Because our goal in this task is to show a wide range of measures being used to assess competencies of I/T teachers and caregivers (rather than to provide extensive detail on just a subset of measures), we began by seeking readily available information for each measure. We knew that not all the information we were interested in would be available online and that the type of documentation that existed for each measure would vary. Therefore, we used three main strategies to identify readily available information:

- Reviewed websites of measure developers/publishers
- Sought original validation articles/manuals
- Requested information from developers and/or users when information was not available online or in a validation article/manual

Documenting this information led to consolidating and narrowing our list of measures to those most relevant for assessing competencies of I/T teachers and caregivers in center-based and family child care homes based on what we learned when gathering additional information. (See Section III for details.)

Stage 3: Additional targeted searches and creating profiles

In stage 3, we synthesized the information gathered for each measure. As expected, there were often gaps in the information available. To present information across measures in a consistent way, we developed a template with only five broad fields for each measure by consolidating information across several of the characteristics identified in Table II.1. Specifically, we documented the following for each measure:

- How is it used with I/T teachers and caregivers?
 - Purpose; for whom the measure is designed; who is using it
- What does it measure?
 - Whether the measure assesses a K, S, or A, and measure developer's conceptualization of what it assesses
- How is it administered?
 - Administration mode; administration time; administration and scoring procedures; proficiency levels; cost
- Are there any training requirements?
 - Any information on training requirements recommended or required by the measure's developer
- What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?
 - Examples of evidence for the measures' reliability and validity with samples that comprised/included I/T teachers and caregivers.

A measure's reliability and validity indicate its quality and usefulness. Reliability refers to whether the measure provides consistent, dependable information. Validity refers to the extent to which a measure actually does assess what it intends to assess. There are different kinds of reliability and validity.

For the measures in this report, we came across three different types of reliability.

- Inter-rater reliability indicates the extent to which different observers agree when observing the same teachers and caregivers at the same time (in other words, that they rate the items on the measure in the same or a similar way). It is measured with a Kappa statistic, by calculating the percent agreement between observers, or by examining the correlation coefficient of scores between observers.
- Internal consistency reliability refers to the extent to which items in the measure capture similar or related concepts (in other words, the extent to which the items in a measure are correlated with each other). It is measured with a Cronbach's alpha.
- Test-retest reliability is the extent to which scores on a measure remain consistent over time (in other words, whether scores from two different time points on the same measure and for the same people are correlated). It is measured by examining the test-retest correlation.

For the measures in this report, we came across examples of construct validity, which indicates whether a measure assesses the construct that it is trying to measure. There are two types of construct validity, both of which are measured with correlation coefficients.

- Concurrent validity is the extent to which scores on measures that capture constructs that are supposed to be related are in fact related. Correlations between related measures should be positive and high.
- Discriminant validity is the extent to which scores on measures that capture constructs that are not supposed to be related or that measure opposite constructs are in fact not related or negatively related. Correlations between unrelated measures should be low, and correlations between measures that capture opposite constructs should be negative.

Using this template, we conducted additional targeted searches (when the information gathered in stage 2 did not address one of these five broader fields) to complete the profile for each measure.

III. RESULTS OF THE SCAN

Overview

Initial list of measures. We initially identified 66 measures by building on prior project activities and obtaining expert input. The measures are diverse in their focus. Some were designed specifically for assessing I/T teachers and caregivers in group settings while others were designed for use with teachers and caregivers of children ages 0 to 5 years. Some were designed to assess classroom/family child care home or program quality more generally, but include specific indicators of teacher or caregiver competencies (for example, the Infant Toddler Environment Rating Scale – Revised [ITERS-R], the Environment and Policy Assessment and Observation Tool, and the Program for Infant/Toddler Care Program Assessment Rating Scale)^a and some are parenting measures that have been adapted for use with teachers and caregivers (for example, the Parenting Interactions with Children: Checklist of Observations Linked to Outcomes and the Parent Modernity Scale).

Narrowing the list of measures. As we analyzed the information gathered for each measure, we narrowed the list of measures to include in profiles.

As noted in Section II, 13 of the 66 measures were used either as originally developed or in an adapted form to assess a set of competencies developed by a collaborative of child development experts from multiple universities who were using them to assess the competencies in their specific framework.^b This collaborative of child development experts also developed its own measures to address gaps in tools to assess competencies. We created a single profile for the measures drawn on or developed by this collaborative; that is, we treated the compiled measures as a single measure of a framework in creating the profile (consistent with how measures aligned with other frameworks are treated).

We also excluded some measures for the following reasons:

- Developed for a specific study or purpose and not appropriate for broader use (2 measures)
- Were software systems and not actual measures (2 measures)
- Did not find evidence of use with I/T teachers and caregivers (2 measures)
- Did not assess teacher/caregiver competencies (6 measures)

^a For these measures, it is challenging to parse subscales that focus on teacher and caregiver competencies because subscales often include indicators/items that assess both teacher and caregiver competencies and other aspects of quality (for example, the Activities subscale of the ITERS-R includes items about the presence of specific activities in the care environment, but also includes an item assessing the extent to which teachers and caregivers promote the acceptance of diversity).

^b One of these measures was also identified in the literature review; we created a separate profile for this measure.

The resulting list included 43 profiles (13 measures associated with a particular competency framework and 30 measures not associated with a particular competency framework). Among these 43:

- Measures assess knowledge (19), skills (35), and attributes (25), with many measures assessing more than one type of competency.
- Only 16 of the measures were designed specifically for use with I/T teachers and caregivers.
- Measures have been used for credentialing (4), professional development (27), and/or research and evaluation (29). Some measures have been used for more than one purpose.
- The measures use a wide range of formats: observation (with or without an interview and document review), surveys with Likert scales, multiple choice questions, true/false statements, self-assessments (with rubrics), and standardized tests.
- Training is required for 18 measures.
- Reliability/validity information is available for a majority of measures developed for research purposes; however, we were unable to locate such information for many other measures – including most measures associated with a particular competency framework.

The results of the scan are intended to serve as a resource that the field can use to understand the variation in approaches to assess I/T competencies. In this report, we present profiles for measures associated with a particular competency framework first (organized alphabetically), followed by profiles for measures not associated with a particular competency framework (organized alphabetically).

Measure summary table

The measure summary table (Table III.1) provides a quick view of all the profiles included in the scan. For each measure, the table includes:

- Name: *Indicates the name of the measure.*
- Mode and setting designed for/used in? *Describes the measurement mode and setting measure has been designed for/used in.*
- Does it assess K, S, and/or A? *Indicates whether the measure assesses knowledge, skills, and/or attributes.*
- What does it assess? *Describes the focus and content of the measure as identified by the measure developer.*
- What is its primary or intended use? *Indicates whether the measure is primarily used for professional development, to earn a credential, and/or for research and evaluation.*
- Designed for use with I/T teachers and caregivers? *Indicates whether the measure is specifically designed for use in settings with I/T teachers and caregivers*

- Is training required? *Indicates whether there is required training associated with the measure.*
- Reliability/validity information located? *Indicates whether information on reliability/validity with I/T teachers and caregivers was located.*

The measure name links to the individual profile for each measure (Section IV).

Table III.1. Measure summary table^{a,b}

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Measures Associated with Competency Frameworks							
Child Development Associate (CDA) National Credentialing Program	The measure includes a verification visit and a standardized test.	KSA	Competencies in the <i>CDA Competency Standards</i> .	Professional Development Credentialing	Yes (There are separate credentials for I/T teachers and caregivers in center-based settings and those working with children ages 0-5 in family child care homes).	Yes	No
Collaborative for Understanding the Pedagogy of Infant Toddler Development (CUPID) Measures of Pre-Service Students' Knowledge and Dispositions in Relation to Work with Infants, Toddlers, and their Families	Measures are web-based surveys and have multiple formats (for example multiple choice, true-false statements, questions with Likert scales). They are designed for use with pre-service I/T teachers and caregivers in bachelor's degree programs.	KSA	Competencies in CUPID's <i>Competencies for the Infant/Toddler Workforce</i> .	Professional Development Research/Evaluation	Yes (designed for use with I/T teachers and caregivers)	No	Yes
CompSat	The measure is a web-based self-assessment toolkit that is designed to be used by teachers and caregivers in center-based settings and family child care homes.	KSA	Competencies in the <i>California Early Childhood Educator (ECE) Competencies</i> .	Professional Development	No (designed for use with teachers and caregivers of children ages 0-5 years)	No	No

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Gateways to Opportunity Infant Toddler Credential Competency (ITC) Toolbox	The measure comprises observations, writing reflections/completing checklists based on observations, and developing learning plans and can be self-administered or administered by an independent assessor. It is designed to assess I/T teachers and caregivers in center-based settings.	KSA	Competencies in the <i>Gateways to Opportunity Illinois Professional Development System Infant/Toddler Competency Table</i> .	Professional Development Credentialing	Yes (designed for use with I/T teachers and caregivers)	No	No
Individual Training Needs Assessment (ITNA)	The measure is a web-based self-assessment that is aligned with the competency framework and is designed to assess teachers and caregivers in center-based settings and family child care homes.	KSA	Competencies in <i>Minnesota’s Knowledge and Competency Frameworks for Early Childhood Professionals</i> .	Professional Development	No (the ITNA is designed to assess I/T teachers and caregivers as well as those working in family child care homes and with preschool-age children)	No	No
Michigan Core Knowledge and Core Competencies for the Early Care and Education Workforce Reflection and Professional Development Tool	The measure is a self-assessment conducted using a rubric that is aligned with the competency framework and is designed to assess teachers and caregivers in a variety of settings.	KSA	Competencies in the <i>Michigan Core Knowledge and Core Competencies for the Early Care and Education Workforce</i> .	Professional Development	No (designed for early childhood professionals but includes the assessment of competencies for those working with infants and toddlers)	No	No

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
New Hampshire's Infant and Toddler Workforce Specialized Competencies Self-Assessment	The measure is a self-assessment conducted using a rubric that is aligned with the competency framework and is designed to assess teachers and caregivers in a variety of settings.	KSA	Competencies in <i>New Hampshire's Infant and Toddler Workforce Specialized Competencies</i> .	Professional Development Credentialing	Yes (designed for use with I/T teachers and caregivers)	No	No
New York State Infant Toddler Care & Education Credential Observation and Portfolio Scoring Instrument	The measure comprises a professional observation and portfolio. It is aligned with the competency framework and is designed to assess teachers and caregivers in New York state licensed centers, family child care homes, and formal programs serving infants and toddlers.	KSA	Competencies in <i>New York State's Infant and Toddler Care and Education Credential Competencies</i> .	Professional Development Credentialing	Yes (designed for use with I/T teachers and caregivers)	No	No
Relationship-Based Competencies to Support Family Engagement: Professional Development Assessment for Teachers and Child Care Providers	The measure is a self-assessment conducted using rubric that is aligned with the Relationship-Based Competencies framework. It can be used by early childhood professionals working in group settings (center-based settings, family child care homes, Early Head Start, and Head Start).	KSA	Competencies in the <i>Relationship-Based Competencies to Support Family Engagement</i> .	Professional Development	No (designed for use with teachers and caregivers of children ages 0-5 years)	No	No

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Utah Core Competencies Assessment	The measure is a self-assessment conducted using a rubric that is aligned with the competency framework. It is designed for use with center-based providers, family child care providers, Head Start and Early Head Start, pre-school teachers, higher education lab schools, school age programs, I/T programs, and those who teach or mentor others in the field.	KSA	Competencies in <i>Utah's Core Competencies</i> .	Professional Development	No (designed for professionals working with infants, toddlers, and youth).	No	No
Vermont's Core Competency Assessment	The measure is a self-assessment conducted by using a rubric that is aligned with the competency framework. It is designed for use in a variety of settings.	KSA	Competencies in the <i>Vermont Early Childhood Core Knowledge and Competencies</i> .	Professional Development	No (designed for use with teachers and caregivers working with infants, toddlers, preschoolers, and school-aged children)	No	No

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Washington's Core Competency Assessment	The measure is a self-assessment conducted by using a rubric that is aligned with the competency framework. It is designed for use in a variety of settings (family child care, child care centers, and Head Start/Early Head Start and state pre-kindergarten programs).	KSA	Competencies in the <i>Washington State Core Competencies for Early Care and Education Professionals</i> .	Professional Development	No (The framework focuses more broadly on early childhood teachers and caregivers but includes a wide range of competencies specific to I/T teachers and caregivers [that are marked with an asterisk]).	No	No
Zero to Three Reflection Tool: Critical Competencies	The measure is a web-based self-assessment conducted by using a rubric that is aligned with the competency framework. It is designed for use in center-based settings and family child care homes.	KSA	Competencies in the <i>ZERO TO THREE Critical Competencies for Infant-Toddler Educators</i> .	Professional Development	Yes (designed for use with I/T teachers and caregivers)	No	No
Measures Not Associated with Competency Frameworks							
Adult Interaction/ Involvement Scale	The measure is an observation that has been used in both centers and family child care homes.	S	Level of interaction/ involvement that teachers/caregivers have with individual children.	Research/Evaluation	Yes (designed for use with I/T teachers and caregivers of children ages 11 to 30 months)	Yes	Yes

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Arnett Caregiver Interaction Scale	The measure is an observation that has been used in both center-based settings and family child care homes.	S	Teacher/caregiver sensitivity, harshness, detachment, and permissiveness.	Research/Evaluation	No (designed for use with teachers and caregivers of preschoolers)	Yes	Yes
Classroom Assessment Scoring System for Infants (Infant CLASS)	The measure is an observation that is designed for use in centers as well as a variety of out-of-home settings, including family child care homes and neighborhood child care settings.	S	Quality of teacher-child interaction (responsive caregiving).	Professional Development Research/Evaluation	Yes (designed for use with I/T teachers and caregivers of children ages 0-18 months)	Yes	Yes
Classroom Assessment Scoring System for Toddlers (Toddler CLASS)	The measure is an observation that is designed for use in centers and family child care homes.	S	Quality of teacher-child interaction.	Professional Development Research/Evaluation	Yes (designed for use with I/T teachers and caregivers of children ages 15-36 months)	Yes	Yes
Concepts of Development Questionnaire (CODQ)	The measure is a survey that has been used in center-based settings.	K	Beliefs about child development.	Research/Evaluation	No (designed for parents but has also been used with I/T teachers and caregivers)	No	Yes
Early Childhood Teaching Inventory (ECTI)	The measure is a survey that has been used in family child care homes.	KS	Teachers' and caregivers' perceptions of their teaching practices, professional knowledge, and classroom management abilities.	Research/Evaluation	No (an adapted version of the ECTI has been used with teachers and caregivers serving children aged 20 months to 5 years)	No	Yes

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Emotional Availability (EA) Scales	The measure is an observation that has been used in center-based settings and family child care homes.	S	Emotional availability and adult-child relationships.	Research/Evaluation	No (there are two versions of the EA scales: one for infants, toddlers, and preschool-age children; the other for school-age children and youth)	Yes	Yes
Environment and Policy Assessment and Observation (EPAO)	The measure is an observation followed by a document review with separate versions for center-based settings and family child care homes; a self-report version has also been developed.	S	Nutrition and physical activity related provisions and practices in early childhood settings as well as associated center-based policies.	Research/Evaluation	No (designed for settings serving children ages 1 to 5 years. It has been adapted for use in settings serving infants)	Yes	Yes
Family and Provider/Teacher Relationship Quality (FPTRQ)	The measures are surveys with separate versions designed for centers, family child care homes, or Head Start/Early Head Start programs.	KSA	The relationship between teachers/caregivers and parents from both of their perspectives.	Professional Development Research/Evaluation	No (designed for use with teachers/caregivers and parents of children ages 0-5 years)	No	Yes
Family Child Care Environment Rating Scale-Revised (FCCERS-R)	The measure is an observation designed for use in family child care homes.	S	Physical features of the caregiving environment and teacher or caregiver competencies.	Professional Development Research/Evaluation	No (designed for use in family child care homes serving children from birth through elementary school)	Yes	Yes

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Goal Achievement Scale (GAS)	The measure is a survey that has been used in center-based settings and family child care homes.	SA	Teachers' and caregivers' competencies in supporting children's social-emotional needs.	Professional Development Research/Evaluation	No (designed for use with early childhood teachers and caregivers)	No	Yes
Inclusive Classroom Profile (ICP)	The measure is an observation (followed by an interview and document review) that is designed for use in inclusive center-based classrooms.	S	Practices for supporting the development and education of children with disabilities in inclusive classrooms.	Professional Development Research/Evaluation	No (designed for use in center-based inclusive classrooms serving children ages 2-5 years)	Yes	No
Infant-Toddler Child Care HOME Inventories (IT-CC-HOME)	The measure is a semi-structured observation and interview designed for use in nonparental care arrangements in home-based settings. These include friend, family, and neighbor care settings as well as family child care settings.	S	Stimulation and support that I/T teachers and caregivers provide to children.	Research/Evaluation	Yes (designed for use in settings serving children ages 0-3 years)	Yes	Yes
Infant Toddler Environmental Rating Scale— Revised Edition (ITERS-R)	The measure is an observation designed for use in center-based classrooms.	S	Physical features of the classroom environment and teacher or caregiver competencies.	Professional Development Research/Evaluation	Yes (designed for use in settings serving children ages 0-30 months)	Yes	Yes
Infant-Toddler Program Quality Assessment (PQA) from HighScope	The measure comprises an observation and staff interviews and is designed for use in center-based settings.	KSA	Physical features of the classroom, program quality, and teacher or caregiver competencies.	Professional Development Research/Evaluation	Yes (designed for use in settings with children ages six weeks to three years)	Yes	No

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Observational Record of the Caregiving Environment (ORCE)	The measure is an observation designed for use in nonmaternal child care settings (including center-based settings, family-child care homes, and neighborhood care settings).	S	Quality of teacher-child interaction.	Research/Evaluation	Yes (Separate forms of the measure are available for children who are approximately 6, 15, 24, 36, and 54 months old)	Yes	Yes
Parent Modernity Scale	The measure is a survey that has been used in centers and family child care homes.	A	Beliefs about raising children (progressive/ democratic versus traditional/ authoritarian).	Research/Evaluation	No (designed for use with parents but has been used with I/T teachers and caregivers)	No	Yes
Parental Reflective Functioning Questionnaire (PRFQ)	The measure is a survey that has been used in family child care homes.	A	Reflective functioning (prementalizing, certainty of mental states, interest and curiosity).	Research/Evaluation	No (designed for parents but has been used with I/T teachers and caregivers)	No	Yes
Parenting Interactions with Children: Checklist of Observations Linked to Outcomes (PICCOLO)	The measure is an observation that has been used in center-based settings and family child care homes.	S	Parents' affection, responsiveness, encouragement, and teaching.	Research/Evaluation	No (designed for use with parents of children ages 10 months to 47 months of age but has also been used with I/T teachers and caregivers)	Yes	Yes

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Program for Infant/Toddler Care Program Assessment Rating Scale (PITC-PARS)	The measure comprises a direct observation, interview, and review of program materials. Separate versions are available for use in center-based settings and family child care homes.	S	Implementation of the PITC approach.	Professional Development Research/Evaluation	Yes (designed for use in settings with children ages birth to 3 years)	Yes	Yes
Quality of Caregiver-Child Interaction for Infants and Toddlers (Q-CCIIT)	The measure is an observation designed for use in center-based settings and family child care homes.	S	Teacher or caregiver support for social-emotional, cognitive, and language and literacy development as well as areas of concern.	Professional Development Research/Evaluation	Yes (designed for use with teachers and caregivers of children ages 0-36 months)	Yes	Yes
Strengthening Families Self-Assessments for Center-based Programs	The measure is a self-assessment aligned with the Strengthening Families framework that is conducted using a rubric that is designed for use in center-based settings.	KSA	Implementation of strategies to strengthen families and help them build protective factors in center-based programs.	Professional Development	No (designed for use in early childhood settings that serve children ages 0-5 years)	No	No
Strengthening Families Self-Assessments for Family Child Care Programs	The measure is a self-assessment aligned with the Strengthening Families framework that is conducted using a rubric that is designed for use in family child care settings.	KSA	Implementation of strategies to strengthen families and help them build protective factors in family child care programs.	Professional Development	No (designed for use in early childhood settings that serve children ages 0-5 years)	No	No

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Taking Care of Young Children Questionnaire	The measure is a survey that has been used in center-based settings and family child care homes.	A	Attitudes related to taking care of young children.	Research/Evaluation	No (designed for use with teachers and caregivers of infants, toddlers, and preschool-age children)	No	Yes
Teacher Behavior Rating Scale (TBRS)	The measure is an observation designed for use in center-based settings.	S	Teacher and caregiver responsiveness and instruction.	Research/Evaluation	No (designed for use in Head Start classrooms but has also been used with I/T teachers/caregivers in classrooms with 2- and 3-year-olds).	Yes	Yes
Teacher Beliefs Scale (TBS)	The measure is a survey that has been used in family child care homes.	A	Beliefs regarding developmentally appropriate practices, child-initiated activities, didactic teaching, and the use of explicit rewards.	Research/Evaluation	No (designed for use with teachers and caregivers of preschool aged children but has also been used with I/T teachers and caregivers)	No	Yes
Teacher Care Patterns Questionnaire (TCPQ)	The measure is a survey that has been used in center-based settings.	A	Teachers' and caregivers' internal representations of their roles as caregivers.	Professional Development Research/Evaluation	No (designed for use with teachers and caregivers of children ages 0-5 years)	No	Yes

Name	Mode and setting designed for/used in?	Does it assess K, S, and/or A?	What does it assess?	What is its primary or intended use?	Designed for use with I/T teachers and caregivers?	Is training required?	Reliability/ validity information located?
Teacher Opinion Survey–Revised (TOSr)	The measure is a survey that has been used in center-based classrooms and family child care homes.	A	Perceived efficacy in relation to managing children’s behavior and making a difference in children’s lives.	Research/Evaluation	No (designed for use with early childhood teachers and caregivers)	No	Yes
Teacher Satisfaction Inventory (TSI)	The measure is a survey that has been used in center-based settings.	A	Aspects of teacher health and job satisfaction.	Research/Evaluation	No (designed for use with early childhood teachers and caregivers)	No	Yes
Teaching Pyramid Infant-Toddler Observation Scale for Infant-Toddler Classrooms (TPITOS)	The measure is an observation followed by interview designed for use in center-based settings.	S	Fidelity of implementation of practices associated with the Pyramid Model.	Professional Development Research/Evaluation	Yes (designed to assess I/T settings serving children ages birth to 3 years)	Yes	No

Source: Authors.

^aAll included measures have been used or are intended to be used to assess I/T teachers and caregivers.

^bMeasures associated with competency frameworks are listed first (organized alphabetically), followed by measures not associated with competency frameworks (organized alphabetically).

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IV. PROFILES

This section includes the individual profile for each measure. Profiles of measures associated with competency frameworks appear first (organized alphabetically), followed by profiles of measures not associated with competency frameworks (organized alphabetically).

A. Measures associated with competency frameworks

Child Development Associate National Credentialing Program: Infant-Toddler

How is it used with I/T teachers and caregivers?

The Child Development Associate (CDA) Credential¹ is a credential offered by the Council for Professional Recognition in early childhood education and the credentialing program is used to determine whether candidates qualify for the CDA. The purpose of the credentialing program is to “enhance the quality of early care and learning by defining, evaluating and recognizing the competence of early care and learning professionals across the country”¹ (p. 5). Separate credentials are awarded to teachers and caregivers who work in a variety of settings: infant/toddler (birth–36 months), preschool (3–5 years), family child care (birth–5 years), and home visiting (families with children ages birth–5 years). Language specializations are also available: there is a Bilingual Specialization for those working in bilingual programs and a Monolingual Specialization for those working in settings in which a language other than English is spoken. The CDA credentialing program requires candidates to master a set of defined learning outcomes and demonstrate them in practice. A verification visit (that involves a review of the candidate’s professional portfolio and an observation where the candidate is observed working with children in their workplace) and an examination (which requires candidates to demonstrate knowledge of best practices in early childhood education) are required to obtain the CDA credential.

What does it measure?

The process of obtaining the CDA credential involves an assessment of **knowledge, skills, and attributes**. The CDA Competency Standards that are used to assess performance with children and families during the CDA assessment process are divided into six “Competency Goals” (further defined in 13 functional areas):

- Goal 1. To establish and maintain a safe, healthy learning environment
 - Safe
 - Healthy
 - Learning Environment
- Goal 2. To advance physical and intellectual competence
 - Physical
 - Cognitive
 - Communicative
 - Creative
- Goal 3. To support social and emotional development and to provide positive guidance
 - Self
 - Social
- Goal 4. To establish positive and productive relationships with families
 - Guidance
 - Families
- Goal 5. To ensure a well-run, purposeful program responsive to participant needs
 - Program Management
- Goal 6. To maintain a commitment to professionalism
 - Professionalism

How is it administered?

A verification visit (completed by a CDA Professional Development Specialist) and an exam (independent assessment) are needed to obtain the CDA credential.

- **Verification visit:** During the verification visit, the CDA Professional Development Specialist goes to the candidate's workplace to review his or her CDA professional portfolio, observe the candidate working with children, and reflect with the candidate about his or her strengths and areas for growth. The method used is the Review-Observe-Reflect Model, which includes review of the portfolio and other materials, observation of the teacher/caregiver in practice, and reflection (discussion) with the CDA candidate. The CDA Professional Development Specialist uses the Comprehensive Scoring Instrument to determine Recommended Scores (ranging from 1 to 3, where 1 = Little or no evidence, 2 = Some evidence, and 3 = Great deal of evidence) for the 51 items in each of the 13 Functional Areas based on a combination of evidence from the professional portfolio and the observation.
- **CDA exam:** Candidates schedule the exam online and take it at a Pearson Testing Center. The exam comprises 65 questions spanning examples of early childhood best practices that candidates are required to complete in 1 hour and 45 minutes.

Scores from the verification visit and the exam are combined into a final Cumulative Score which determines the candidate's credentialing decision.

Cost^c: The assessment fee for CDA candidates is \$425.

Are there any training requirements?

CDA Professional Development Specialists (who conduct the verification visit) need to apply for and take an online training offered by the Council for Professional Recognition; they also complete a short exam at the end of training.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

References

- ¹Council for Professional Recognition. (2017). The Child Development Associate National Credentialing Program and CDA Competency Standards. Washington DC: Council for Professional Recognition.
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^c Cost information was obtained on June 18, 2019 from the CDA Council website.

Collaborative for Understanding the Pedagogy of Infant/Toddler Development measures of pre-service students' knowledge and dispositions in relation to work with infants, toddlers, and their families

How is it used with I/T teachers and caregivers?

The Collaborative for Understanding the Pedagogy of Infant/Toddler Development (CUPID) was formed by university-based child development experts to enhance the preparation of the I/T teacher and caregiver workforce. CUPID researchers have worked to select and develop instruments to assess the knowledge, dispositions, and skills necessary for pre-service I/T teachers and caregivers (in bachelor's degree programs) to work effectively with infants, toddlers, and their families. CUPID first developed *Competencies for the Infant/Toddler Workforce*¹ based on empirical evidence and in alignment with other professional standards and then selected/adapted/developed measures to assess each competency.

What does it measure?

The measures assesses **knowledge, skills, and attributes**. Specifically, CUPID researchers have drawn on or developed measures to assess the following competencies:

- Reflective Practice
- Building and Supporting Relationships
- Supporting Development and Learning
- Guiding Infant/Toddler Behavior
- Partnering with and Supporting Families

The group is in the process of selecting and/or developing measures for additional competencies, including the following:

- Assessing Behavior, Development, and Environments
- Including Infants/Toddlers with Special Needs
- Professionalism
- Mentoring/Coaching: Supporting Competencies in Adults

How is it administered?

The measures are web-based and have multiple formats. Per the developers:

- Knowledge is assessed via multiple choice or true/false questions
- Skills are assessed via vignettes of realistic group-care situations with multiple choice response options and a self-efficacy rating. In each vignette, a developmentally appropriate response option is presented with developmentally inappropriate alternative responses and respondents are instructed to indicate their likely response. The vignettes emphasize observable actions and provide limited contextual information. Response options are of similar length and do not provide information on the intent behind the response.
- Dispositions (attributes) are assessed with attitude/belief/value questions using a Likert scale

Each competency is assessed by using a combination of sources (such as subsets of items from existing measures and new items developed by CUPID researchers). For example, the Building and Supporting Relationships competency is measured by using a combination of the following measures that “assess beliefs about active learning, focus on basic skills, value of early learning, and support for individual differences”.²

- 18 items from the Knowledge of Infant Development Inventory³ that assess knowledge about infant abilities and milestones
- 30 true/false statements from Neuromyths in Education⁴ that assess infant brain development
- 8 items from Trust in Organismic Development⁵ that “assess trust in children’s natural abilities to develop in a healthy, autonomous fashion.”²
- 4 items from the Parental Opinion Survey⁶ that assess beliefs related to the importance of reading to and talking to infants and toddlers; 5 items assess beliefs related to the idea that caregivers have little influence
- 11 items from the Teaching Beliefs Scale⁷ that “assess endorsement of teacher-led, basic skills didactic approaches versus child-centered, individualized learning.”²
- 3 items from the Parental Modernity Inventory⁸ assess beliefs related to the idea that all children need child-centered, individualized learning opportunities
- 8 items created by CUPID to assess respect for individual differences.

Cost: Materials reviewed did not reference costs associated with obtaining the measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure’s reliability and validity with I/T teachers and caregivers?

CUPID researchers are working on studies to investigate the psychometric properties of the measures with pre-service I/T teachers and caregivers. For example, they are using item response theory analyses to examine the psychometric properties of the vignettes and factor analysis to investigate several scales. Cronbach’s alphas for scales created to assess the Supporting Development and Learning competency from preliminary analysis are as follows:

- 9 adapted items from Duncan’s Interpersonal Mindfulness in Parenting measure (Cronbach’s alpha = 0.56)

- 17 items from the Knowledge of Infant-Toddler Development Inventory and 1 CUPID-created item (Cronbach's alpha = 0.79)
- 17 items from a combination of sources including the Teaching Beliefs Scale and adapted items from the Parenting Modernity Inventory and the Parental Opinion Survey (Cronbach's alpha = 0.78). Exploratory factor analyses revealed the presence of three factors: Child-led learning (9 items); Teacher-led/structured learning (6 items); Value of early learning (2 items)

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CompSAT

How is it used with I/T teachers and caregivers?

CompSAT¹ is a companion to the *California Early Childhood Educator (ECE) Competencies*² and is designed to be used by college faculty, mentor teachers, mentor directors, student cohorts, program directors and staff, or individual family child care home providers. The ECE Competencies focus on early care and education for children from birth to age 5, but a wide range of competencies are specific to I/T teachers and caregivers. CompSAT “guides early educators through a process of self-reflection and authentic assessment in the 12 competency areas detailed in the ECE Competencies.”¹ It is meant to be a professional development resource that early childhood educators can use for self-reflection about their knowledge, skills, and dispositions. It is intended to assist with the development of professional growth plans by identifying competencies that are associated with high quality, effective practices.

What does it measure?

CompSAT assesses **knowledge, skills, and attributes** in 12 “competency areas”:²

- Child Development and Learning
- Culture, Diversity, and Equity
- Relationships, Interactions, and Guidance
- Family and Community Engagement
- Dual-Language Development
- Observation, Screening, Assessment, and Documentation
- Special Needs and Inclusion
- Learning Environments and Curriculum
- Health, Safety, and Nutrition
- Leadership in Early Childhood Education
- Professionalism
- Administration and Supervision

How is it administered?

The measure is a web-based self-assessment toolkit that includes multiple tools (scenarios, stories, photos, videos, and activities) to help educators reflect. It also has “keys to reflection and inquiry” that ECE professionals can use to reflect on each competency area. ECE professionals assess themselves on each competency area, while keeping in mind the desired outcomes for practitioners and children, and document their observations, thoughts, and feelings into a template. The measure also provides guidance for building a professional portfolio and documenting work within each competency area.

CompSAT is meant to be used as a companion to the ECE Competencies, which provide a comprehensive description of qualified ECE staff along a continuum from entry to advanced levels for performance areas within each competency. There are four proficiency levels:

- Supporting Early Learning and Development
- Planning and Guiding Early Learning and Development
- Creating and Maintaining Program Policies and Practices
- Advancing the Early Childhood Profession

Cost: There is no cost associated with using the CompSAT.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

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Gateways to Opportunity Infant Toddler Credential Competency Toolbox

How is it used with I/T teachers and caregivers?

The Gateways to Opportunity Infant Toddler Credential Competency (ITC) Toolbox¹ is integrated within the Illinois I/T Credential and is designed to support the assessment of each competency in the *Gateways to Opportunity Illinois Professional Development System Infant/Toddler Competency Table*.² It includes a competency-based rubric and resources to support the assessment of I/T teachers and caregivers. It is designed for use with teachers and caregivers in center-based settings.

What does it measure?

The toolbox assesses **knowledge, skills, and attributes**. The competencies are organized within seven “ITC Content Areas”:

- Curriculum or Program Design
- Family and Community Relationships
- Human Growth and Development
- Health, Safety, and Well-Being
- Interactions, Relationships, and Environments
- Observation and Assessment
- Personal and Professional Development

How is it administered?

The measure can be used as a self-assessment or used by an independent assessor. It includes a master rubric as well as rubrics for each of the competencies within the seven topic areas. There are also guides for those completing the assessment or those being assessed based on the master rubrics. I/T teachers and caregivers are evaluated using multiple formats (for example, by conducting observations, writing reflections/completing checklists based on observations, and developing learning plans). It is possible to design assessments by using the complete master rubrics or by using a selection of competencies from the rubrics. There are five levels of competency:

- Infant/Toddler Assistant Teacher
- Entry-Level Infant/Toddler Teacher
- Infant/Toddler Teacher
- Infant/Toddler Lead Teacher
- Infant/Toddler Master Teacher

Cost: There is no cost associated with using this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

References

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Individual Training Needs Assessment

How is it used with I/T teachers and caregivers?

The Individual Training Needs Assessment (ITNA) is aligned with *Minnesota's Knowledge and Competency Frameworks for Early Childhood Professionals*.¹ Minnesota has different versions of the frameworks for teachers and caregivers working with infants and toddlers,² family child care providers,³ and teachers and caregivers of preschool-age children.⁴ Early childhood professionals can use the ITNA for self-assessment and to set professional development goals.

What does it measure?

The ITNA measures **knowledge, skills, and attributes** and is meant to be used in conjunction with *Minnesota's Knowledge and Competency Framework for Early Childhood Professionals* (it is designed to reflect all three versions of the competency framework).^{2,3,4} The competencies are organized into eight content areas:

- Child Development and Learning
- Developmentally Appropriate Learning Experiences
- Relationships with Families
- Assessment, Evaluation and Individualization
- Historical and Contemporary Development of Early Childhood Education
- Professionalism
- Health, Safety and Nutrition
- Application Through Clinical Experiences

Cost: Materials reviewed did not reference costs associated with obtaining the measure.

How is it administered?

The measure is a self-assessment (with a rubric). Teachers and caregivers can complete the assessment online. There are three proficiency levels that describe a progression of skills for each competency within the eight content areas:

- Level 1: Explores—Individuals at this level are generally new to the field or to the specific concept.
- Level 2: Implements—Individuals at this level know what to expect of children and various developmental stages and how to foster learning in children.
- Level 3: Designs and Leads—Educators at this level design learning environments and experiences; they also engage in professional decision making.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

References

- ¹Minnesota Association for the Education of Young Children and the Minnesota Professional Development Council. (2004). *Minnesota core competencies* (1st ed.). MN: Author.
- ²Minnesota Department of Human Services. (n.d.). *Minnesota's knowledge and competency framework for early childhood professionals: Working with infants and toddlers*. MN: Department of Human Services.
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Michigan Core Knowledge and Core Competencies for the Early Care and Education Workforce Reflection and Professional Development Tool

How is it used with I/T teachers and caregivers?

The Michigan Core Competencies for the Early Care and Education Workforce Reflection and Professional Development Tool is aligned with the *Michigan Core Knowledge and Core Competencies for the Early Care and Education Workforce*.^d The competencies focus on early childhood teachers and caregivers, but a wide range of competencies are specific to I/T teachers and caregivers. The tool is designed to be used as a self-assessment and to identify professional development needs of teachers and caregivers working in a variety of settings.

What does it measure?

The measure assesses **knowledge, skills, and attributes** and is aligned with the competency framework. The framework is divided into eight Core Knowledge and Competency Areas:

- Child Development
- Interactions and Guidance
- Teaching and Learning
- Observation, Documentation and Assessment
- Health, Safety and Nutrition
- Family and Community Engagement
- Professionalism
- Management

How is it administered?

The measure is a self-assessment (with a rubric). Each Core Knowledge and Competency Area has 5–15 related Competency Statements. For each competency, there are three proficiency levels or “indicators”:

- Developing: incorporates knowledge and comprehension
- Achieving: incorporates application and some analysis
- Extending: incorporates analysis and synthesis

^d The competency framework refers to the Reflection and Professional Development tool as a companion document, but we could not locate the tool.

Each level builds on the knowledge of the previous level. However, although those at the Achieving level would have mastered the competency indicators at the Developing level, those at the Developing level may also possess some of the indicators at the Achieving or Extending level.

Cost: There is no cost associated with using this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

Reference

¹Michigan Department of Education. (2014). Michigan core knowledge and core competencies for the early care and education workforce. MI: Department of Education.

New Hampshire's Infant and Toddler Workforce Specialized Competencies Self-Assessment

How is it used with I/T teachers and caregivers?

New Hampshire's Infant and Toddler Workforce Specialized Competencies Self-Assessment¹ tool is integrated with New Hampshire I/T Credential and aligned with *New Hampshire's Infant and Toddler Workforce Specialized Competencies*. The tool is designed to be used by I/T teachers and caregivers across a variety of settings to document their competency level and record action steps for their professional development plan. The professional development plan, which includes the self-assessment of competencies, is supposed to be attached when applying for the I/T Credential.

What does it measure?

The measure assesses **knowledge, skills, and attributes**. The competencies are organized into five core knowledge areas:

- Developing as a Professional (professional development, standards of quality, program administration, advocacy, leadership, ethics)
- Building Family and Community Relationships (communication partnerships and participation, family and cultural contexts, family leadership, family supports, community resources)
- Teaching and Learning (relationships and interactions, curriculum and environment, strategies for teaching and learning, individualization, cultural relevance, positive behaviors)
- Promoting Child Growth and Development (children's learning and development, influences on development, health and safety, application of knowledge to practice)
- Observing, Documenting, and Assessing (reflective practice, documentation of curriculum and learning, assessment of children's development, communication of documentation and assessment, program assessment)

How is it administered?

The measure is a self-assessment (with a rubric). There are four proficiency levels:

- F = Foundational
- I = Intermediate
- A = Advanced
- S = Specialist

Teachers and caregivers use the tool to document their proficiency level on each competency and note their action steps for their professional development plan. The plan is to be signed by a reviewer.

Cost: There is no cost associated with using this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

Reference

¹New Hampshire Department of Health and Human Services. (2015). *New Hampshire's Infant and Toddler Workforce Specialized Competencies*. NH: Department of Health and Human Services.

New York State Infant Toddler Care & Education Credential Observation and Portfolio Scoring Instrument

How is it used with I/T teachers and caregivers?

The New York State Infant Toddler Care & Credential¹ Observation and Portfolio Scoring Instrument² is aligned with New York State's *Infant and Toddler Care and Education Credential Competencies*³ and is intended for I/T teachers and caregivers working in a New York state licensed center, family child care home, or formal program that serves infants and toddlers. Both the professional observation and the portfolio are integrated with New York's I/T Credential. Applicants are required to submit a portfolio that provides a representative sample of their competency in each of four major topic areas to help reviewers conduct their assessment. A written report based on a one-hour observation by an early childhood professional that describes the applicant's competence in the four competency topic areas is also required.

What does it measure?

The measure assesses **knowledge, skills, and attributes** across four topic areas:

- I/T Development
- Family and Culture
- Environment and Curriculum
- Assessment and Evaluation

How is it administered?

A professional observation and portfolio are required to obtain the I/T credential.

- The professional observation includes the following:
 - A written report based on a one-hour observation by an early childhood professional (experienced in I/T care) describing the candidate's competence in the four topic areas
 - Two letters from families of children the candidate works with, attesting to the candidate's competence in working with children and families
- The portfolio includes the following:
 - A two- to four-page essay explaining the candidate's experience in I/T care, including how learning through coursework has impacted the candidate's practice.
 - One of the following four types of documentation for demonstrating knowledge of competencies in each of the four topic areas covered by the competency framework:
 - Photo journal: This must include 5–10 labeled photos depicting the candidate's competence in the topic area along with a written or audio-recorded description of what is depicted and how it demonstrates/does not demonstrate the knowledge, skills, and attitudes of a competent early childhood educator.

- Video: This must be 20–30 minutes and edited to demonstrate the candidate’s competence in the topic area in as many ways as possible (along with a written or audio-recorded description of what is depicted and how it demonstrates/does not demonstrate the knowledge, skills, and attitudes of a competent early childhood educator).
 - Written essay: The essay must include a discussion of the topic area in a way that shows the candidate’s knowledge, skills, and attitudes of selected competency statements.
 - Ethical dilemma: The essay must detail the candidate’s personal experience related to a controversial issue in policy or practice. It must include a description of the situation, present opposing sides, explore potential solutions, and choose a side based on the candidate’s knowledge of the issue.
- A professional development plan that includes the candidate’s career goals, educational plan, and action steps planned

The candidate can receive a maximum of three points for each topic area.

Cost: New York’s I/T credential fee is \$350.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure’s reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure’s reliability and validity with I/T teachers and caregivers.

References

- ¹New York Association for the Education of Young Children. (2014). *New York State Infant and Toddler Care and Education Credential*. NY: NYAEYC. Retrieved from <http://nysaeyc.org/wp-content/uploads/ITCEC-Instruction-Booklet.pdf>
- ²New York Association for the Education of Young Children. (2014). *New York State Infant and Toddler Care and Education Portfolio Scoring Instrument*. NY: NYAEYC. Retrieved from <http://nysaeyc.org/wp-content/uploads/ITCEC-Portfolio-Scoring-Tool.pdf>
- ³New York Association for the Education of Young Children. (2014). *New York State Infant and Toddler Care and Education Credential Competencies*. NY: NYAEYC. Retrieved from <http://nysaeyc.org/wp-content/uploads/ITCEC-Competencies.pdf>

Relationship-Based Competencies to Support Family Engagement: Professional Development Assessment for Teachers and Child Care Providers

How is it used with I/T teachers and caregivers?

The Professional Development Assessment for Teachers and Child Care Providers¹ is aligned with the *Relationship-Based Competencies (RBCs) to Support Family Engagement*, developed by ACF's National Center on Parent, Family, and Community Engagement.² The RBCs reflect practices recommended across multiple fields (such as early childhood education, early intervention, infant mental health, social work, and pediatrics) for working with families from pregnancy through early childhood. The core document on the RBCs is complemented by guides for three different groups of early childhood professionals, one of which is for early childhood professionals who work with children in group settings.³ The assessment tool is designed such that teachers and caregivers of children ages 0-5 years can assess their progress in each competency and identify areas for professional development.

What does it measure?

The measure assesses **knowledge, skills, and attributes**. Specifically, it assesses each of the 10 RBCs:

- Positive, Goal-Oriented Relationships
- Self-Aware and Culturally Responsive Relationships
- Family Well-Being and Families as Learners
- Parent-Child Relationships and Families as Lifelong Educators
- Family Connections to Peers and Community
- Family Access to Community Resources
- Leadership and Advocacy
- Coordinated, Integrated, and Comprehensive Services
- Data Driven Services and Continuous Improvement
- Professional Growth

How is it administered?

The measure is a self-assessment (with a rubric). There are four proficiency levels for the specific aspects of each competency:

- I have a solid understanding and skills and continue to grow in this area.
- I am making progress in my understanding, skills, and growth in this area.

- I need support to learn more and grow in this area.
- I would like to focus on this area in my professional practice.

Cost: There is no cost associated with using this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of evidence of the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

References

- ¹U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start, National Center on Parent, Family, and Community Engagement. (2018). Relationship-based competencies to support family engagement: Professional development assessment for teachers and child care providers. Retrieved from <https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/no-search/rbc-sfe-pro-dev-assess-teachers.pdf>
- ²U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start, National Center on Parent, Family, and Community Engagement. (2018). Relationship-based competencies to support family engagement: Overview for early childhood professionals. Retrieved from <https://eclkc.ohs.acf.hhs.gov/family-engagement/article/relationship-based-competencies-support-family-engagement-overview-early>
- ³U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start, National Center on Parent, Family, and Community Engagement. (2018). Relationship-based competencies to support family engagement: A guide for early childhood professionals who work with children in group settings. Retrieved from <https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/no-search/rbc-sfe-guide-pro-children-group-settings.pdf>

Utah's Core Competencies Assessment

How is it used with I/T caregivers?

Utah Core Competencies Assessment is aligned with *Utah Core Competencies*¹. The competencies were developed for professionals working with infants, toddlers, and youth, but there are a wide range of competencies specific to I/T teachers and caregivers. The assumption is that individuals can “view their placement on the continuum and work toward future goals of improvement”¹ (p. 3). The document is designed for use with “center based providers, family child care providers, Head Start and Early Head Start, pre-school teachers, higher education lab schools, school age programs, I/T programs, and those who teach or mentor others in the field”¹ (p. 3). The competency document describes how the competencies can be used by providers, practitioners, and teachers; directors, program directors, and mentors; trainers and training organizations; and higher education organizations.

What does it measure?

The measure assesses **knowledge, skills, and attributes** and is aligned with the competency framework. Competencies are descriptions of tasks/functions and the indicators under each competency provide steps to accomplish the competency. The competencies are organized around seven content areas:

- Health and Safety
- Child Growth and Development
- Child Guidance and Emotional Wellness
- Learning Environment and Curriculum Implementation
- Observation and Assessment
- Family and Community Relationships
- Personal and Professional Development

How is it administered and scored?

The measure is a self-assessment (with a rubric). There are five proficiency levels or “steps.” “The steps are cumulative and each step describes skills from entry level to those of a seasoned professional. This allows an individual to enter the continuum at the most applicable place and progress within their own individualized, professional development plan. The competency statements identify abilities that can be achieved as a professional develops and progresses through beginning, intermediate, and advanced skills and gains more proficiency in practices”¹ (p. 6). The steps are as follows:

- Building basic knowledge and skills
- Begins to understand and apply
- Knows, explains, and practices
- Evaluates, models, and mentors
- Creates, teaches, collaborates, and advocates

Cost: There is no cost associated with using this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

Reference

¹Salt Lake Community College and Childcare Professional Development Institute. (n.d.) Utah Core Competencies: What early care and youth education professionals should know and be able to do to provide quality care for Utah's smallest residents. Salt Lake City, UT: Department of Workforce Service's, Office of Work & Family Life, Office of Child Care.

Vermont's Early Childhood Competency Assessment

How is it used with I/T teachers and caregivers?

Vermont's Core Competency Assessment is aligned with the *Vermont Early Childhood Core Knowledge and Competencies*.¹ The competencies were designed for use with teachers and caregivers working with infants, toddlers, preschoolers, and school-aged children; there are a wide range of competencies specific to I/T teachers and caregivers. Vermont's competency framework is the basis for their Early Childhood Career Ladder^a and guides the formulation of professional development plans required to advance on the Ladder.

What does it measure?

The measure assesses **knowledge, skills, and attributes** and is aligned with the competency framework. The framework includes a wide range of competencies specific to I/T teachers and caregivers across eight content areas:

- Child Development
- Observing and Assessing
- Families and Communities
- Health, Safety, and Nutrition
- How We Teach
- What We Teach
- Professionalism
- Program Organization

How is it administered?

The measure is a self-assessment (with a rubric). There are four cumulative levels of competency:

- Level I: professionals who meet the essential standards of child engagement, health, and safety
- Level II: professionals who have begun connecting and applying the standard to working with children and families
- Level III: professionals who are able to fully apply the standard and adapt strategies across situations and settings

^a The Vermont Early Childhood Career Ladder is a tool designed for tracking and planning early childhood teachers' and caregivers' professional development. It identifies six levels of professional development. Teachers and caregivers enter at a level that matches their education and experience and move up the ladder as they accumulate skills and knowledge.

- Level IV: professionals who are able to assess how well the standard is met and make adaptations to meet the changing needs of children, families, and colleagues

Cost: There is no cost associated with using this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

Reference

¹Vermont Northern Lights Career Development Center. (2017). Early Childhood Core Knowledge and Competencies. Retrieved from <https://northernlightscv.org/wp-content/uploads/2018/09/CKC-Competencies-Tool-9.26.18.pdf>

Washington State's Core Competency Assessment

How is it used with I/T teachers and caregivers?

Washington state core competencies assessment is aligned with the *Washington State Core Competencies for Early Care and Education Professionals*.¹ The competency framework is designed to be used to plan professional development for teachers and caregivers working with young children (in family child care, child care centers, and Head Start/Early Head Start and state pre-kindergarten programs). Although the framework includes competencies professionals need to work with children birth through 8 and their families, it also includes a wide range of competencies specific only to I/T teachers and caregivers (marked with an asterisk).

The framework document indicates how competency levels map to the state career lattice.

What does it measure?

The measure assesses **knowledge, skills, and attributes** and is aligned with the competency framework. The framework focuses more broadly on early childhood teachers and caregivers but includes a wide range of competencies specific to I/T teachers and caregivers (which are marked with an asterisk in the framework document). The competencies are organized into eight content areas:

- Child Growth and Development
- Curriculum and Learning Environment
- Ongoing Measurement of Child Progress
- Families and Community Partnerships
- Health, Safety, and Nutrition
- Interactions
- Program Planning and Development
- Professional Development and Leadership

How is it administered?

The measure is a self-assessment (with a rubric). There are five cumulative levels of competency that teachers and caregivers progress through (by engaging in a combination of formal and/or informal study and reflection on practice):

- Level 1: foundational knowledge and skills expected of an individual new to the field of early education and care or for professionals who have been in the field but have had limited opportunity for “specialized mentoring, training, or education.”
- Level 2: knowledge and skills comparable to a Child Development Associate credential, a certificate in child development, or training/education

- Level 3: knowledge and skills comparable with an associate's degree in early childhood education or child development.
- Level 4: knowledge and skills comparable to a bachelor's degree in early childhood education or child development.
- Level 5: knowledge and skills comparable to an advanced degree in early childhood education or child development.

Cost: There is no cost associated with using this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

Reference

^aWashington State Department of Early Learning. 2009. *Washington State Core Competencies for Early Care and Education Professionals*. WA: Department of Early Learning.

ZERO TO THREE Reflection Tool: Critical Competencies

How it is used with I/T teachers and caregivers?

The ZERO TO THREE Reflection Tool¹ is aligned with the *ZERO TO THREE Critical Competencies for Infant-Toddler Educators*.² It is designed to enable I/T teachers and caregivers working in centers and family child care homes to reflect on and determine the frequency with which they demonstrate the competencies in their daily interactions with children.

What does it measure?

The measure assesses **knowledge and skills**. Specifically, it assesses competencies within three broad learning and development areas (and 13 sub-areas):

- Supporting social-emotional development
 - Building warm, positive, and nurturing relationships
 - Providing consistent and responsive caregiving
 - Supporting emotional expression and regulation
 - Promoting socialization
 - Guiding behavior
 - Promoting children's sense of identity and belonging
- Supporting cognitive development
 - Facilitating exploration and concept development
 - Building meaningful curriculum
 - Promoting imitation, symbolic representation, and play
 - Supporting reasoning and problem solving
- Supporting language and literacy development
 - Promoting communication exchange
 - Expanding expressive and receptive language vocabulary
 - Promoting early literacy

How is it administered?

The tool is a survey that I/T teachers and caregivers can access online with authorization from ZERO TO THREE. It has three parts that correspond to the critical competency learning and development areas; each part takes 20 minutes to complete.

Teachers and caregivers use a 7-point scale to rate the frequency with which they demonstrate a competency, where 1 = Never and 7 = Always. Upon completion of the tool, they receive a confidential report that helps them identify their strengths and areas of development.

Cost: The tool can be accessed with authorization from ZERO TO THREE. Materials reviewed did not reference a cost associated with obtaining this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

References

¹ZERO TO THREE. (n.d.). ZERO TO THREE Reflection Tool: Critical competencies. Washington, DC: Author.

²Dean, A., LeMoine, S., & Mayoral, M. (2016). ZERO TO THREE critical competencies for infant-toddler educators. Washington, DC: ZERO TO THREE.

B. Measures not associated with competency frameworks

Adult Interaction/Involvement Scale

How is it used with I/T teachers and caregivers?

The Adult Interaction Scale,¹ which is also referred to as the Adult Involvement Scale,² is designed to assess the level of involvement of I/T teachers and caregivers with children ages 11 to 30 months. The measure has been used in several studies including the Cost, Quality, and Outcomes Study.³ It has been used in research with I/T teachers and caregivers of children in both centers and family child care homes.

What does it measure?

The scale assesses **skills**. Specifically, it assesses the extent to which I/T teachers and caregivers interact with individual children (that is, whether the teacher or caregiver is absent, ignores the child, only verbally and physically interacts with the child for routine care, or is verbally and physically interactive with the child beyond providing routine care).

How is it administered?

The measure is an observation. Specific administration and scoring procedures vary by study. For example, in one study, observers coded teacher/caregiver-child interactions for each child in four 15-minute segments over a 3-hour period using 20-second coding intervals.⁴ In another study, observers conducted three sets of 5-minute observations using 20-second intervals.⁵ Observers use a 7-point scale to rate interactions where 0 = absent, 1 = ignores, 2 = routine, 3 = minimal, 4 = simple social, 5 = elaborated, and 6 = intense. The mean level of interactive involvement over all intervals is calculated (ranging from 0–6).

Cost: Materials reviewed did not reference costs associated with obtaining the measure or training for this measure.

Are there any training requirements?

The measure is administered by a trained observer. In one study, observers were required to practice coding in both taped and live segments to establish reliability.⁴ Before data collection, observers practiced the coding structure for five hours by observing, through a two-way mirror, toddlers interacting with their caregivers in a university-based child care program. At the start of data collection, observers established reliability by collecting live data for the first three classroom observations. Five children were independently rated for a total of 900 time-sampled observations for initial reliability.

What are some examples of research related to the measure's reliability and validity with I/T teachers and caregivers?

In a study that included 115 toddlers aged 12-24 months and their teachers and caregivers, the inter-rater reliability using the Kappa statistic was 0.84 at the start of the data collection and 0.85 in the middle of data collection.⁴ In another study that included 23 family child care providers (in 22 homes) serving at least one child age 10 to 21 months, the test-retest reliability of the measure was examined by correlating scores from two child care observations conducted 1–2 weeks apart by the same observer; scores were stable across time ($r = 0.81$, $p < .0001$). In this study, there was an inverse correlation between the average number of hours worked by caregivers per week and the mean level of adult-child interaction ($r = -0.46$, $p < .05$). Group size was also inversely correlated with mean level of involvement ($r = -0.46$, $p < .05$).⁶

References

- ¹Rubenstein, J., & Howes, C. (1979). Caregiving and infant behavior in day care and in homes. *Developmental Psychology*, 15, 1–24. doi:10.1037/0012-1649.15.1.1
- ²Howes, C., & Stewart, P. (1987). Child's play with adults, toys, and peers: An examination of family and child care influences. *Developmental Psychology*, 23, 423–430.
- ³Peisner-Feinberg, E. S., Burchinal, M. R., Clifford, R. M., Culkin, M. L., Howes, C., Kagan, S. L., & Yazejian, N. (2000). The children of the Cost, Quality, and Outcomes Study go to school: Technical report. Chapel Hill: University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Center.
- ⁴Ruprecht, K., Elicker, J., & Choi, J. Y. (2016). Continuity of care, caregiver–child interactions, and toddler social competence and problem behaviors. *Early education and development*, 27(2), 221–239.
- ⁵Burchinal, M. R., & Cryer, D. (2003). Diversity, child care quality, and developmental outcomes. *Early childhood research quarterly*, 18(4), 401–426.
- ⁶Elicker, J., Fortner-Wood, C., & Noppe, I. C. (1999). The context of infant attachment in family child care. *Journal of Applied Developmental Psychology*, 20(2), 319–336.

Arnett Caregiver Interaction Scale

How is it used with I/T teachers and caregivers?

The Arnett Caregiver Interaction Scale¹ is designed for use in early childhood center-based settings and family child care homes. It has been used in research with teachers and caregivers of infants, toddlers, and preschool-aged children in several large-scale studies, such as the Early Childhood Longitudinal Study- Birth Cohort (ECLS-B),² the Early Head Start Research and Evaluation Project (EHSREP),³ and the Head Start Family and Child Experiences Survey (FACES; 1997, 2000, 2003, and 2006 cohorts).⁴

What does it measure?

The measure assesses **skills**. Specifically, it assesses teacher and caregiver emotional tone, discipline style, and responsiveness. Although factor analysis has resulted in different subscales across studies, the measure usually contains the following subscales:

- Sensitivity (10 items)
- Harshness (8 items)
- Detachment (4 items)
- Permissiveness (4 items)

How is it administered?

The measure is an observation. It comprises 26 items that are completed by trained observers over a period of at least 45 minutes. Observers use a 4-point scale to indicate the extent to which each item is characteristic of the teacher or caregiver they are observing, where 1 = not at all characteristic of the child care provider and 4 = very much characteristic of the child care provider.

Cost: Materials reviewed did not reference costs associated with obtaining the measure or training for this measure.

Are there any training requirements?

In the ECLS-B, observers were required to achieve at least a 0.80 agreement with a consensus score; reliability was monitored by having two observers rate 10 percent of settings.²

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In a study that examined the psychometric properties of the Arnett in a national sample of 750 I/T teachers and caregivers serving 2-year-olds in home-based care and 1,350 teachers and caregivers serving 4-year-olds in center-based care from the ECLS-B, results indicated that the Arnett did not adequately distinguish between caregivers who are “highly” versus “moderately” positive in their interactions with children. Associations with child outcomes for the two-year-olds in home-based care were small; specifically, scores on the Arnett were positively associated with cognitive, social, regulation, and attention skills ($r = 0.11$ to 0.15). Home-based teachers and caregivers who were more educated had higher scores on the Arnett ($r = 0.20$ - 0.24).²

This measure was included in the Quality of Early Childhood Care and Education Settings: A Compendium of Measures prepared by Child Trends for OPRE.⁵ Please refer to the compendium for in-depth information on this measure.

References

- ¹ Arnett, J. (1989). Caregivers in day-care centers: Does training matter? *Journal of Applied Developmental Psychology, 10*, 541-522.
- ² Colwell, N., Gordon, R. A., Fujimoto, K., Kaestner, R., & Korenman, S. (2012). New evidence on the validity of the Arnett Caregiver Interaction Scale: Results from the Early Childhood Longitudinal Study–Birth Cohort. *Early Childhood Research Quarterly, 28*(2), 218–233.
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- ⁴ Stephens, S. A., Craig, D., & Ferguson, D. (2018). Head Start Family and Child Experiences Survey (FACES) bibliography. Retrieved from <https://www.researchconnections.org/childcare/resources/35542/pdf>
- ⁵ Halle, T., Vick Whittaker, J. E., & Anderson, R. (2010). *Quality in early childhood care and education settings: A compendium of measures* (2nd ed.). Washington, DC: Child Trends. Prepared by Child Trends for the Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from https://www.acf.hhs.gov/sites/default/files/opre/complete_compendium_full.pdf

Classroom Assessment Scoring System Tool for Infants

How is it used with I/T teachers and caregivers?

The Classroom Assessment Scoring System Tool for Infants¹ (Infant CLASS) is designed to assess the quality of interactions between infants (ages 0–18 months) and their teachers and caregivers in centers as well as a variety of out-of-home settings (including family child care homes and neighborhood child care settings). It is a relatively newer version of the CLASS and has been used in large-scale research studies, for example in the Early Head Start Family and Child Experiences Study: Baby FACES 2018 (in conjunction with the Toddler CLASS).² It can also be used for professional development.

What does it measure?

The measure assesses **skills**. The Infant CLASS is based on the interactions in routine care activities within which the infant is fully dependent on the teacher or caregiver. The focus is on verbal and physical interactions between infants and their teachers/caregivers rather than classroom management, as the former are believed to be more influential to infant development.³ Specifically, the measure assesses skills in the context of the interactions between teachers and caregivers with children in four dimensions within the domain of responsive caregiving:

- Relational climate (proximity and eye contact, emotionality, respect)
- Teacher sensitivity (awareness and cue detection, responsiveness, infant comfort)
- Facilitated exploration (involvement with infants, maintaining a focus on the child, expanding infants' experiences through encouragement, varied intonation, and material or activity adjustment to facilitate engagement)
- Early language support (teacher talk, communication support, communication extension).¹

How is it administered?

The Infant CLASS is an observation conducted over three or four 20-minute cycles over a period of 2.5 hours. Observers use a 7-point scale to rate each dimension. Scores of 1–2 mean the quality of teacher- and caregiver-child interactions is low; scores of 3–5 are given when classrooms show a mix of effective and ineffective interactions; and scores of 6–7 are given when effective interactions are consistently observed.

The mean score for responsive caregiving is derived by averaging the four dimension scores.

Cost:^a

- Score sheets (pack of five booklets): \$15.00
- CLASS manual: \$65
- Infant/toddler combined observation training: \$1,800

^a Cost information was obtained on February 28, 2019 from the Teachstone website.

Are there any training requirements?

Observers must attend a three-day in-person I/T CLASS training and then attempt online certification. Certification is valid for a year, after which observers can recertify online.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

The validity of the CLASS Infant was investigated in a study of teachers and caregivers in 30 I/T classrooms. Scores on the four Infant CLASS dimensions were positively associated with the overall score on the Infant-Toddler Environment Rating Scale-Revised (ITERS-R, $r = 0.54-0.65$). As expected, Infant CLASS scores were positively associated with the process item scores on the ITERS-R; associations with structural item scores were not significant in general. In addition, teacher sensitivity was inversely associated with group size ($r = -0.38$). The number of years of experience teaching infants was positively associated with relational climate ($r = 0.30$). There were no associations between Infant CLASS scores and teacher education level.⁴

References

- ¹Hamre, B. K., La Paro, K. M., Pianta, R. C., & LoCasale-Crouch, J. (2014). *Classroom Assessment Scoring System (CLASS) manual: Infant*. Baltimore, MD: Brookes.
- ²Early Head Start Family and Child Experiences Study (Baby FACES), 2007-2020. Office of Planning, Research, and Evaluation, Administration of Children and Families, 2019, <https://www.acf.hhs.gov/opre/research/project/early-head-start-family-and-child-experiences-study-baby-faces>.
- ³Teachstone Training. (2014). Infant CLASS Observation Training PowerPoint. V1.3.
- ⁴Jamison, K. R., Cabell, S. Q., LoCasale-Crouch, J., Hamre, B. K., & Pianta, R. C. (2014). CLASS–Infant: An observational measure for assessing teacher–infant interactions in center-based child care. *Early Education and Development*, 25(4), 553–572.

Classroom Assessment Scoring System Tool for Toddlers

How is it used with I/T teachers and caregivers?

The Classroom Assessment Scoring System Tool for Toddlers (Toddler CLASS)¹ is designed to assess the quality of interactions between toddlers (ages 15–36 months) and their teachers and caregivers in centers and family child care homes. It has been used in large-scale research studies, such as the Early Head Start Family and Child Experiences Study: Baby FACES 2009² and 2018.³ It can also be used for professional development.

What does it measure?

The measure assesses **skills**. Specifically, it assesses skills in the context of interactions between teachers and caregivers with toddlers in the following two domains:

- Emotional and behavioral support
 - Positive climate (relationships, positive affect, respect)
 - Negative climate (negative affect, punitive control, teacher negativity, child negativity)
 - Teacher sensitivity (awareness, responsiveness, child comfort)
 - Regard for child perspectives (focus on the child, flexibility, support of independence)
 - Behavior guidance (proactive, supporting positive behavior, problem behavior)
- Engaged support for learning
 - Facilitation of learning and development (active facilitation, expansion of cognition, children's active engagement)
 - Quality of feedback (scaffolding, providing information, encouragement and affirmation)
 - Language modeling (supporting language use, repetition and feedback, self- and parallel talk, advanced language)

How is it administered?

The Toddler CLASS is an observation conducted over three or four 20-minute cycles over a period of 2.5 hours. Observers use a 7-point scale to rate each dimension. Scores of 1–2 mean the quality of teacher- and caregiver-child interactions is low; scores of 3–5 are given when classrooms show a mix of effective and ineffective interactions; and scores of 6–7 are given when effective interactions are consistently observed.

The mean score for each domain (that is, emotional and behavioral support and engaged support for learning) is derived by averaging the dimension scores.

Cost:^a

^a Cost information was obtained on February 28, 2019 from the Teachstone website.

- Score sheets (pack of 5 booklets): \$15.00
- CLASS manual: \$65
- Infant/toddler combined observation training: \$1,800

Are there any training requirements?

Observers must attend a three-day in-person I/T CLASS training and then attempt online certification. Certification is valid for a year, after which observers can recertify online.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In the Baby FACES 2009 sample, which included teachers and caregivers in 455 Early Head Start classrooms with 2- and 3-year-old children, there were significant concurrent associations between the Toddler CLASS and language and social-emotional measures (small in magnitude). The pattern of significant associations was not consistent across CLASS domains or across observed ages:

- Scores on the Emotional and Behavioral Support domain were:
 - Positively associated with language and communication skills at age 2 and Spanish vocabulary comprehension scores at age 3
 - Negatively associated with teacher reported English vocabulary comprehension scores at age 3
 - Positively associated with a number of social-emotional scores at both age 2 and 3
- Scores on the Engaged Support for Learning domain were:
 - Positively associated with language skills at age 2
 - Negatively associated with teacher reported Spanish vocabulary at age 3
 - Positively associated with a number of social-emotional outcomes at both age 2 and 3

Associations were also found between Toddler CLASS scores and teacher and caregiver job satisfaction. Higher scores on Emotional and Behavioral Support were associated with lower teacher and caregiver depression and better relationships with parents.²

References

- ¹La Paro, K. M., Hamre, B. K., & Pianta, R. C., (2009). *The Classroom Assessment Scoring System, Toddler Version*. Charlottesville, VA: Teachstone.
- ²Bandel, E., Aikens, N., Vogel, C. A., Boller, K., & Murphy, L. (2014). *Observed quality and psychometric properties of the CLASS-T in the Early Head Start Family and Child Experiences Survey*. Washington, DC: Mathematica Policy Research.
- ³*Early Head Start Family and Child Experiences Study (Baby FACES), 2007-2020*. Office of Planning, Research, and Evaluation, Administration of Children and Families, 2019, <https://www.acf.hhs.gov/opre/research/project/early-head-start-family-and-child-experiences-study-baby-faces>.

Concepts of Development Questionnaire

How is it used with I/T teachers and caregivers?

The Concepts of Development Questionnaire (CODQ)¹ is designed for parents but has also been used in research with I/T teachers and caregivers in center-based classrooms to assess the degree of cognitive complexity in their understanding of child development issues.²

What does it measure?

The measure assesses **knowledge**. Specifically, it evaluates I/T teachers' and caregivers' "degree of cognitive complexity in reasoning about child development issues"² (p. 211) on a scale that ranges from categorical to perspectivistic. Categorical items focus on the extent to which I/T teachers and caregivers identify children with their roles or labels (for example, girls are easier to care for than boys) and use single explanations for behavior (in this example, gender). I/T teachers and caregivers who agree with categorical statements presumably have less complex thinking and fail to consider more than one factor in the child and environment in understanding children's behavior. Perspectivistic items examine I/T teachers' and caregivers' understanding that children have an existence beyond their roles and labels and that developmental outcomes can have more than one cause (for example, the understanding that children's problems are likely to have more than one cause). I/T teachers and caregivers who agree with perspectivistic statements presumably have more complex thinking and are likely to consider multiple factors in the child and the environment in understanding children's behavior.

How is it administered?

The measure is a survey (20 items). I/T teachers and caregivers use a 4-point scale to complete each item, where 1 = strongly disagree and 4 = strongly agree. Responses can be used to calculate 2 sub scores (categorical and perspectivistic) and a total score. Categorical (10 items) and perspectivistic (10 items) sub scores are derived by adding the 10 items and dividing by 3, which result in subscale scores ranging from 0–3. The total score is computed by subtracting the perspectivistic score from the categorical score and adding 3; the result is then divided by 2.³

Cost: Materials reviewed did not reference costs associated with obtaining the measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In a study conducted with 56 I/T teachers and caregivers in center-based classrooms serving children aged 0-3 years of age, the Cronbach's alpha of this measure was 0.65. Overall, scores on the CODQ were not associated with quality of care. However, among I/T teachers and caregivers who perceived their work environments as less supportive, those who were more complex in their thinking (as evidenced by high scores on the CODQ) demonstrated more sensitivity in their care than did those who were less complex in their thinking.²

References

- ¹Sameroff, A. J., & Feil, L. A. (1984). Parental concepts of development. In I. Sigel, (Ed.), *Parental belief systems: The psychological consequences for children* (pp. 83–105). Hillsdale, NJ: Erlbaum.
- ²Manlove, E. E., Vazquez, A., & Vernon-Feagans, L. (2008). The quality of caregiving in child care: Relations to teacher complexity of thinking and perceived supportiveness of the work environment. *Infant and Child Development: An International Journal of Research and Practice*, 17(3), 203–222.
- ³Benasich, A. A., & Brooks-Gunn, J. (1996). Maternal attitudes and knowledge of childrearing: Associations with family and child outcomes. *Child Development*, 67, 1186–1205.

Early Childhood Teaching Inventory

How is it used with I/T teachers and caregivers?

The Early Childhood Teaching Inventory¹ (ECTI) is designed to assess teacher and caregiver teaching practices, professional knowledge, and classroom management abilities in early childhood settings. An adapted, abbreviated version of the ECTI has been used in research with I/T teachers and caregivers in family child care homes.²

What does it measure?

The measure assesses **knowledge and skills**. Specifically, four subscales assess aspects related to teaching practices, professional knowledge, and classroom management:

- Responsivity
- Focus
- Professional knowledge
- Crisis management

How is it administered?

The adapted ECTI is a survey (12 items). Teachers and caregivers use a 5-point scale to complete each item where 1 = No, I'm sure I cannot do this and 5 = Yes, I'm sure I can do this. Scores are computed by summing items within each subscale; a total score is created by summing all 12 items.

Cost: Materials reviewed did not reference costs associated with obtaining the measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of research related to the measure's reliability and validity with I/T teachers and caregivers?

In a study conducted with teachers and caregivers in 258 family child care homes,^a Cronbach's alpha for the ECTI total score was 0.91 and ranged from 0.60 to 0.82 for the four subscales.²

References

- ¹VandeWiele, L. (2001). *Early Childhood Teaching Inventory*. Charlotte, NC: Quality Research Center.
- ²Bryant, D. M., Wesley, P. W., Burchinal, M., Sideris, J., Taylor, K., Fenson, C. & Iruka, I. U. (2009). The QUINCE-PFI Study: An evaluation of a promising model for child care provider training: Final report. Retrieved from <http://www.researchconnections.org/childcare/resources/18531/pdf>

^a Study did not explicitly state the ages of children served but supporting information in the study suggests these FCCs served infants and/or toddlers.

Emotional Availability Scales

How is it used with I/T teachers and caregivers?

The Emotional Availability (EA) Scales¹ are designed to examine relationships across a broad spectrum of adult-child relationships (including parent-child and teacher/caregiver-child relationships) in a variety of settings. They have two versions: one for young children (infants, toddlers, and preschoolers) and the other for school-age children and youth. The scales have been used in research to examine I/T teachers' and caregivers' relationships with children in centers and family child care homes^{2,3} and include items that focus on specific indicators of I/T teacher or caregiver competencies as well as those that assess child qualities.

What does it measure?

The measure assesses **skills**. Specifically, it assesses the following teacher and caregiver dimensions in the context of responding to and interacting with children:

- Sensitivity
- Structuring
- Non-intrusiveness
- Non-hostility

Child dimensions of responsiveness to the teacher or caregiver and involvement with the teacher or caregiver are also assessed.

How is it administered?

The measure is an observation. Observers video-record the teacher/caregiver's interactions with children for 15–20 minutes. Coders use a 7-point scale to assign a score for each teacher/caregiver and child dimension after two viewings of the video.

Cost: Materials reviewed did not reference costs associated with obtaining the measure or training for this measure. Cost information for the training is available by contacting the developers.

Are there any training requirements?

As described by the developers, "The training is offered both online and in vivo, and hence readily accessible. The training involves reading, lecture, and practice on approximately 10 training videos of parent-child relationships, followed by a test of inter-rater reliability, with the requirement of achieving greater than 80% agreement across all codes. The training is 3 days (whether in vivo or online) and then approximately 10 hours of inter-lab reliability testing and feedback through the secure website (www.emotionalavailability.com via the EA Portal)³ (p. 120).

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Evidence of the reliability and validity of the EA scales has been provided in several studies; however, a majority of these studies have been conducted with mothers and children (ranging in age from 0 to 14 years).³ In one study of 57 I/T teacher/caregiver and child (aged 11 to 23 months) dyads, the inter-rater

reliability on the EA scales was maintained at $r > .80$. Scores on the sensitivity ($r = .41, p < .01$) and nonintrusiveness ($r = .43, p < .01$) dimensions were associated with attachment security. Scores on the EA scales were also associated with teacher/caregiver supportiveness, detachment, and hostility.

References

- ¹Biringen, Z., Robinson, J., & Emde, R. N. (1998). *Emotional availability (EA) scales* (3rd ed.). Retrieved from www.emotionalavailability.com
- ²Biringen, Z., Altenhofen, S., Aberle, J., Baker, M., Brosal, A., Bennett, S., . . . & Swaim, R. (2012). Emotional availability, attachment, and intervention in center-based child care for infants and toddlers. *Development and Psychopathology, 24*(1), 23–34.
- ³Biringen, Z., Derscheid, D., Vliegen, N., Closson, L., & Easterbrooks, M. A. (2014). Emotional availability (EA): Theoretical background, empirical research using the EA Scales, and clinical applications. *Developmental Review, 34*(2), 114–167.

Environment and Policy Assessment and Observation

How is it used with I/T teachers and caregivers?

The Environment and Policy Assessment and Observation (EPAO)¹ is designed to describe the nutrition and physical activity environment and practices of child care facilities serving children ages 1 to 5 years. The EPAO is used for research. It has been adapted for use in centers serving infants;² there is also a separate version that is used in family child care homes.³ Although it includes items that focus broadly on program policies and the caregiving environment in relation to children's nutrition, physical activity, and sedentary time, it also includes items that are focused on specific indicators of teacher and caregiver competencies (that is, items that assess teacher and caregiver practices in relation to children's nutrition, physical activity, and sedentary time).

What does it measure?

The measure assesses **skills**. It assesses nutrition, physical activity, and sedentary practices policies, and environments in early childhood education and caregiving settings. The components it assesses include food and beverages served, physical activity opportunities, sedentary time, provider practices, and program policies.⁴

How is it administered?

The EPAO comprises a full-day observation (that starts before the first feeding session) followed by a document review (completed after the observation). A self-report version has also been developed.⁴

Cost:^a There is no cost associated with obtaining the measure. A copy of the measure, training videos, and scoring sheets are available for download on the University of North Carolina at Chapel Hill's website. Materials reviewed did not reference costs associated with training for the measure.⁴

Are there any training requirements?

Training and certification are required. Training and certification materials are available on the University of North Carolina at Chapel Hill's website.⁴

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In a sample of 32 centers serving infants and toddlers (aged <2 years) that participated in an obesity prevention intervention, the inter-rater reliability on the adapted EPAO was 0.87.² In a sample of 166 teachers and caregivers in family child care homes (mean child age = 35.7 months), the EPAO total nutrition score was associated with increased child healthy eating index score.⁵

^a Cost information was obtained on July 9, 2019 from the University of North Carolina at Chapel Hill website.

References

- ¹Ward, D., Hales, D., Haverly, K., Marks, J., Benjamin, S., Ball, S., & Trost, S. (2008). An instrument to assess the obesogenic environment of child care centers. *American Journal of Health Behavior*, 32(4), 380-386.
- ²Neelon, S. E. B., Taveras, E. M., Østbye, T., & Gillman, M. W. (2014). Preventing obesity in infants and toddlers in child care: Results from a pilot randomized controlled trial. *Maternal and Child Health Journal*, 18(5), 1246–1257.
- ³Vaughn, A. E., S. Mazzucca, R. Burney, R., et al. “Assessment of nutrition and physical activity environments in family child care homes: Modification and psychometric testing of the environment and policy assessment and observation.” *BMC Public Health*, vol. 17, no. 1, 2017, p. 680.
- ⁴*The Children’s Healthy Weight Research group*. University of North Carolina at Chapel Hill, 2019, <http://chwr.web.unc.edu/resources/>.
- ⁵Neelon, S. E. B., Vaughn, A. E., Tovar, A., Østbye, T., Mazzucca, S., & Ward, D. S. (2018). The family child care home environment and children's diet quality. *Appetite*, 126, 108-113.

Family and Provider/Teacher Relationship Quality Provider/Teacher and Parent Measures

How is it used with I/T teachers and caregivers?

The Family and Provider/Teacher Relationship Quality (FPTRQ)¹ Provider/Teacher and Parent measures are designed for teachers/caregivers and parents of children ages birth to 5 years in centers, family child care homes, or Head Start/Early Head Start programs. They are part of a family of five measures designed to assess the relationship between teachers/caregivers and parents from both of their perspectives (the other three versions are for directors, family services staff, and family services staff-parent version). The developers indicate that “the FPTRQ measures can help inform policy, practice, and research. For example, state and local administrators can use the questionnaires to inform the development or revision of QRIS family partnership indicators and ratings. Practitioners and professional development systems can use the questionnaires to identify or monitor the quality of relationships and to inform the development of training and coursework. Researchers can use the questionnaires to test associations between provider/teacher relationships with families and specific child, family, and provider/teacher outcomes”¹ (p.8).

What does it measure?

The provider/teacher and parent versions of the measure assess **knowledge, skills and attributes** and capture elements of quality in teacher and caregivers’ relationships with parents. Overlapping items are similar across versions. Specifically, they assess the following constructs and subscales:

- Family-specific knowledge (that is, information sought from the families served; 12 items in provider/teacher version; 15 items in parent version)
- Practices
 - Collaboration (15 items in provider/teacher version; 11 items in parent version)
 - Responsiveness (4 items in provider/teacher version; 11 items in parent version)
 - Communication (4 items in provider/teacher version; 8 items in parent version)
 - Family-focused concern (parent version only – 3 items)
- Construct: Attitudes
 - Commitment (4 items in provider/teacher version; 9 items in parent version)
 - Openness to change (teacher/provider version only – 8 items)
 - Understanding context (parent version only – 4 items)
 - Respect (4 items in provider/teacher version 5 items in parent version)

How is it administered?

The measures are surveys (take 10 minutes each to complete). Items within the measures are on different scales. For example, some items ask respondents to indicate frequency, whereas others ask respondents to indicate the extent to which they agree with statements related to specific topics.

The User's Manual¹ provides instructions for entering scores into a scoring sheet, which generates a total score as well as scores for each construct and subscale. Subscale scores are created by adding scores for individual items within each subscale, and the total score is created by adding subscale scores. Instructions for reverse coding items are provided.

Cost: There is no cost associated with the measures. The measures and the scoring sheets are available online.

Are there any training requirements?

There are no training requirements associated with these measures.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

The field study of the FPTRQ included teachers and caregivers serving children ages 0-5 years. The sample comprised 330 teachers and caregivers from center-based programs (635 parents), 100 from Early Head Start and Head Start programs (288 parents), and 93 from family child care homes (261 parents). For the provider/teacher measure, Cronbach's alphas ranged from 0.63 for the Commitment subscale to 0.91 for the Collaboration and Responsiveness subscales. For the parent measure, Cronbach's alphas ranged from 0.75 for the Family-focused Concern subscale to 0.97 for Understanding Context subscale.¹

Reference

¹Kim, K., Porter, T., Atkinson, V., Rui, N., Ramos, M., Brown, E., Guzman, L., Forry, N., & Nord, C. (2015). Family and provider/teacher relationship quality measures: Updated user's manual. OPRE Report 2014-65. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from https://www.acf.hhs.gov/sites/default/files/opre/fptrq_updated_user_manual_april_2015_508_0.pdf

Family Child Care Environment Rating Scale–Revised Edition

How is it used with I/T teachers and caregivers?

The Family Child Care Environment Rating Scale-Revised (FCCERS-R)¹ is designed for use with teachers and caregivers in family child care homes serving children from birth through elementary school. The tool may be used for teacher/caregivers' self-evaluation, monitoring, professional development, and technical assistance, and for research and evaluation. Although the measure has some items that focus on physical features of the caregiving environment (for example, "Furniture for routine care and play", "Room arrangement", and items that get at the presence of specific toys and activities), it also has items that assess teacher or caregiver competencies (for example, "Helping children understand and use language", "Supervision of play and learning", and "Promoting acceptance of diversity").

What does it measure?

The measure assesses **skills**. Specifically, it includes 38 items categorized into seven subscales:

- Space and Furnishings (6 items)
 - Indoor space used for child care
 - Furniture for routine care, play, and learning
 - Provision for relaxation and comfort
 - Arrangement of indoor space for child care
 - Display for children
 - Space for privacy
- Personal Care Routines (6 items)
 - Greeting/departing
 - Meals/snacks
 - Nap/rest
 - Diapering/toileting
 - Health practices
 - Safety practices
- Listening and Talking (3 items)
 - Helping children understand language
 - Helping children use language
 - Using books
- Activities (11 items)
 - Fine motor
 - Art
 - Music and movement
 - Blocks
 - Dramatic play
 - Math/number
 - Nature/science
 - Sand and water play
 - Promoting acceptance of diversity
 - Use of TV, video, and/or computer
 - Active physical play
- Interaction (4 items)
 - Supervision of play and learning
 - Provider-child interaction
 - Discipline
 - Interactions among children
- Program Structure (4 items)
 - Schedule
 - Free play
 - Group time
 - Provisions for children with disabilities
- Parents and Staff (4 items)

- Provisions for parents
- Opportunities for professional growth
- Balancing personal and caregiving responsibilities
- Provisions for professional needs

How is it administered?

The FCCERS-R comprises an observation conducted over 2.5 to 3 hours followed by a 20- to 30-minute interview with the teacher or caregiver to ask questions about items that were not observed. Observers use a 7-point scale to complete each item, where 1 = inadequate and 7 = excellent. Numbered indicators that outline specific requirements for each item are provided at score points 1 (inadequate), 3 (minimal), 5 (good), and 7 (excellent). The observer starts at level 1 and scores each indicator “yes”, “no” or “NA” (not applicable). The final score for each item is based on the number of indicators that have been “passed.” The total score is calculated by averaging across all scored items. Higher scores indicate higher assessed quality.

Cost:^a

- FCCERS-S-R record form 2007: \$21.95
- FCCERS-R Video Training DVD: \$6
- Video Guide and Training Workbook: \$4

Training costs can be obtained from the Environment Rating Scales Institute.

Are there any training requirements?

The measure developers recommend training with an experienced FCCERS-R trainer. They offer three-day and five-day trainings at the University of North Carolina at Chapel Hill. Observers should conduct at least two practice observations with an experienced trainer followed by an inter-rater agreement comparison. Additional practice observations may be necessary to establish reliability.

What are some examples of the evidence for the measure’s reliability and validity with I/T teachers and caregivers?

The standardization sample for the FCCERS-R included 45 family child care homes and was stratified by ages of children served. As described by the developers, “In the final sample 47% (21 homes) of the family child care homes had at least one child under the age of 1, 27% (12 homes) had only children under the age of 3 enrolled, and 7% (3 homes) of the homes enrolled only children who were over 2.5 years old”¹ (p.3). Per the FCCERS-R manual, the Cronbach’s alpha for the overall score was 0.90; alphas for the subscales ranged 0.46–0.90 (Space and Furnishings: 0.71; Personal Care Routines: 0.46; Listening and Talking: 0.83; Activities: 0.88; Interaction: 0.84; Program Structure: 0.62; Parents and Provider: 0.39).¹

Due to the high alpha for the total score, authors indicate that the FCCERS-R is likely a measure of global quality and caution against using subscale scores in research; subscale scores are likely to be more useful for practitioners and for the purposes of providing technical assistance.

^a Cost information was obtained on February 28, 2019 from the Environment Rating Scales Institute website.

The FCCERS-R manual provides a number of references demonstrating predictive validity of the measure.¹

This measure was included in the Quality of Early Childhood Care and Education Settings: A Compendium of Measures prepared by Child Trends for OPRE.² Please refer to the compendium for in-depth information on this measure.

References

¹Harms, T., Cryer, D., & Clifford, M. (2007). *Family child care environment rating scale—revised edition*. New York: Teachers College Press.

²Halle, T., Vick Whittaker, J. E., & Anderson, R. (2010). *Quality in early childhood care and education settings: A compendium of measures* (2nd ed.). Washington, DC: Child Trends. Prepared by Child Trends for the Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from https://www.acf.hhs.gov/sites/default/files/opre/complete_compendium_full.pdf

Goal Achievement Scale

How is it used with I/T teachers and caregivers?

The Goal Achievement Scale (GAS)¹ is designed to assess the efficacy of mental health consultation in early child care settings. There are two versions of the measure: a director version and a teacher/staff version. Although the measure was originally designed for use in center-based settings, it has been adapted to assess I/T teachers and caregivers in family child care homes.^{2a} It has been used in research as well as for professional development.

What does it measure?

The measure assesses **skills and attributes**. Specifically, it is a self-report measure of teachers' and caregivers' competencies in supporting children's social-emotional needs (for example, whether they feel like they have an improved understanding of children's social-emotional development; whether they feel more understood and supported).

How is it administered?

The measure is a survey (14 items). Teachers and caregivers use a 3-point scale to indicate their agreement with statements about their competencies, where 0 = not at all and 2 = very much.

Cost: Materials reviewed did not reference costs associated with obtaining the measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In a quasi-experimental evaluation of an attachment-based professional development that included 51 family child care providers, Cronbach's alpha on the GAS was 0.94.²

References

- ¹Alkon, A., Ramler, M., & MacLennan, K. (2003). Evaluation of mental health consultation in child care centers. *Early Childhood Education Journal*, 31(2), 91–99.
- ²Gray, S. A. (2015). Widening the Circle of Security: A quasi-experimental evaluation of attachment-based professional development for family child care providers. *Infant Mental Health Journal*, 36(3), 308–319.

^a Study did not explicitly state the ages of children served but supporting information in the study suggests these FCCs served infants and/or toddlers.

Inclusive Classroom Profile

How is it used with I/T teachers and caregivers?

The Inclusive Classroom Profile (ICP)¹ assesses “the quality of daily inclusive classroom practices that support the developmental needs of children with disabilities in early childhood settings. It is designed for use in inclusive classrooms with teachers and caregivers serving children ages 2–5¹” (p. 1). The measure is designed for use for professional development as well as research purposes. Although it includes items that focus on physical features of the classroom environment (for example, the presence of visual supports, books, and resources to supporting social communication) and program policies (for example, whether the program has a written policy for inclusion), it also has items that assess teacher or caregiver competencies (for example, teachers/caregivers demonstrate awareness and responsiveness to children; teachers/caregivers encourage the participation of children in activities).

What does it measure?

The measure assesses **skills**. Specifically, the rating scale is organized into 12 evidence-based practices (items) that are known to be important for supporting the development and education of children with disabilities in inclusive classrooms:

- Adaptations of space and materials/equipment
- Adult involvement in peer interactions
- Adults' guidance of children's play
- Conflict resolution
- Membership
- Relationships between adults and children
- Support for communication
- Adaptation of group activities
- Transitions between activities
- Feedback
- Family-professional partnerships
- Monitoring children's learning

How is it administered?

The ICP comprises a 2.5–3 hour observation followed by a 20-minute teacher/caregiver interview/document review. Observers use a 7-point scale to complete each item, where 1 = practices considered highly inadequate for promoting children's active participation in the group and meeting their individual needs and 7 = practices that promote to the highest degree children's active participation in the group through individualized strategies and accommodations. An average score is calculated by adding the individual item ratings and dividing it by the number of items that were rated as part of the ICP assessment.

Cost: ^a

- ICP manual: \$35
- ICP scoring forms: \$35 (for a packet of 5 forms)

The cost of training varies based on specific requirements.

^a Cost information was obtained on February 28, 2019 from the Brookes Publishing website.

Are there any training requirements?

Observers are required to attend a five-day training, which includes a half-day overview session and four classroom observation reliability sessions. The reliability sessions include a half-day observation with an ICP trainer in the morning followed by a half-day scoring session in the afternoon.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any information about the measure's reliability and validity with I/T teachers and caregivers.

Reference

¹Soukaku, E. P. (2012). Measuring quality in inclusive preschool classrooms: Development and validation of the Inclusive Classroom Profile (ICP). *Early Childhood Research Quarterly*, 27(3), 478–488.

Infant-Toddler Child Care HOME Inventory

How is it used with I/T teachers and caregivers?

The Infant-Toddler Child Care HOME Inventory (IT-CC-HOME)¹ was adapted from the original HOME,² which is used to assess the home environment. The IT-CC-HOME is designed to measure the stimulation and support that I/T teachers and caregivers provide to children (under age 3) in nonparental care arrangements in home-based settings; there is also an Early Childhood version for children ages 3-6 years (EC-CC HOME). Non-parental care arrangements include friend, family, and neighbor care settings as well as family child care homes. The IT-CC-HOME has been used in large scale research studies, such as the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care and Youth Development.² Although it assesses physical features of the care environment (for example, organization; learning materials), it also has subscales that assess teacher or caregiver competencies (for example, caregiver responsiveness; acceptance).

What does it measure?

The IT-CC-HOME measure **skills**. It includes six subscales:

- Caregiver Responsivity
- Acceptance
- Organization
- Learning Materials
- Caregiver Involvement
- Variety of Stimulation

How is it administered?

The measure is a semi-structured observation and interview (that includes 43 binary-choice items) conducted over a 45- to 90-minute visit. The visit is conducted “during a time when the target child and the child’s primary caregiver are present and the child is awake. Other adults and children, even guests, can be present; but their presence is not necessary. Administration involves a low-key semi-structured observation and interview done so as to minimize intrusiveness and allow children and caregivers to act normally. Throughout the course of the visit observations of caregiver–child interaction and discussions with the caregiver about objects, events, and transactions that occur are probed and interpreted from the child’s point of view. The intent is to understand the child’s opportunities and experiences in that setting; in essence, to understand what life is like for a particular child in this particular family child care context”¹ (p. 299). Observers score each item as a “plus” = 1 or “minus” = 0; the percentage of “plus” responses is the pass rate on the measure.

Cost: Materials reviewed did not reference costs associated with obtaining the measure or training for this measure.

Are there any training requirements?

Per the original validation study, a half day of training is needed. According to the developers, to be certified on the IT-CC-HOME, data collectors scored a videotaped administration. “Their scoring was compared to the ‘gold standard’ scoring developed by the first author. Data collectors were required to

achieve at least 90 percent agreement with the gold standard scoring in order to be certified. To maintain certification, data collectors were re-examined every 4 months using the same videotape procedure"¹ (p. 300). In this study, the developers indicated that although rigorous training and monitoring was required for their study, such intensive training is generally not required to attain reliability on the IT-CC-HOME.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In a study of 377 children (aged 0-24 months) and their teachers and caregivers using data from the NICHD Study of Early Child Care and Youth Development, inter-rater reliability (as assessed by Pearson correlation) on the IT-CC-HOME was 0.94. Scores on the IT-CC-HOME were associated with scores on the Observational Record of the Caregiving Environment (ORCE), with the strongest correlations found between the ORCE Sensitivity composite and Caregiver Responsivity ($r = 0.61, p < .05$). The ORCE Stimulation composite was also moderately correlated with Caregiver Involvement ($r = 0.44, p < .05$).¹

References

- ¹Bradley, R. H., Caldwell, B. M., & Corwyn, R. F. (2003). The Child Care HOME Inventories: Assessing the quality of family child care homes. *Early Childhood Research Quarterly, 18*(3), 294–309.
- ²Caldwell, B. M., & Bradley, R. H. (2003). *Home observation for measurement of the environment: Administration manual*. Little Rock, AR: University of Arkansas.

Infant/Toddler Environment Rating Scale— Revised Edition

How is it used with I/T teachers and caregivers?

The Infant/Toddler Environment Rating Scale—Revised Edition (ITERS-R)¹ is designed for use in center-based I/T classrooms serving children ages birth to 30 months. Although it includes items that assess physical features of the classroom environment (for example, “Furniture for routine care and play”, “Room arrangement”, and items that get at the presence of specific toys and activities), it also has items that assess teacher or caregiver competencies (for example, “Helping children understand and use language”, “Supervision of play and learning”, and “Promoting acceptance of diversity”). The tool has been used in large-scale research studies, such as the Early Head Start Family and Child Experiences Study: Baby FACES 2009² and may also be used for teacher/caregivers’ self-evaluation, monitoring, professional development, and technical assistance..

What does it measure?

The measure assesses **skills**. Specifically, it includes 39 items categorized into seven subscales:

- Space and Furnishings (5 items)
 - Indoor space
 - Furniture for routine care and play
 - Provision for relaxation and comfort
 - Room arrangement
 - Display for children
- Personal Care Routines (6 items)
 - Greeting/departing
 - Meals/snacks
 - Nap
 - Diapering/toileting
 - Health practices
 - Safety practices
- Listening and Talking (3 items)
 - Helping children understand language
 - Helping children use language
 - Using books
- Activities (10 items)
 - Fine motor
 - Active physical play
 - Art
- Music and movement
 - Blocks
 - Dramatic play
 - Sand and water play
 - Nature/science
 - Use of TV, video, and/or computers
 - Promoting acceptance of diversity
- Interaction (4 items)
 - Supervision of play and learning
 - Peer interaction
 - Staff-child interaction
 - Discipline
- Program Structure (4 items)
 - Schedule
 - Free play
 - Group play activities
 - Provisions for children with disabilities

- Parents and Staff (7 items)
 - Provision for parents
 - Provisions for personal needs of staff
 - Provisions for professional needs of staff
 - Staff interaction and cooperation
 - Staff continuity
 - Supervision and evaluation of staff
 - Opportunities for professional growth

How is it administered?

The ITERS-R comprises an observation conducted over 2.5 to 3 hours followed by a 20- to 30-minute interview with the teacher or caregiver to ask questions about items that were not observed. Observers use a 7-point scale to complete each item, where 1 = inadequate and 7 = excellent. Numbered indicators that outline specific requirements for each item are provided at score points 1 (inadequate), 3 (minimal), 5 (good), and 7 (excellent). The observer starts at level 1 and scores each indicator “yes”, “no” or “NA” (not applicable). The final score for each item is based on the number of indicators that have been “passed”. The total score is calculated by averaging across all scored items. Higher scores indicate higher assessed quality.

Cost:^a

- ITERS-R: \$21.95
- Video observation DVD: \$64
- Video Guide and Training Workbook for the ITERS-R: \$5

Training costs can be obtained from the Environment Rating Scales Institute.

Are there any training requirements?

The developers recommend training with an experienced ITERS-R trainer and offer three-day and five-day trainings at the University of North Carolina at Chapel Hill. Observers should conduct at least two practice observations with an experienced trainer followed by an inter-rater agreement comparison. Additional practice observations may be necessary to establish reliability.

What are some examples of the evidence for the measure’s reliability and validity with I/T teachers and caregivers?

The standardization sample of the ITERS-R included 45 I/T classrooms from 34 centers. As described in the manual, “Of the 45 groups observed, 15 were from groups with children under 12 months of age, 15 from groups with children 12-24 months old, and 15 with children 18-30 months old.” Per the ITERS-R manual, the Cronbach’s alpha for the overall score was 0.93; alphas for the subscales ranged 0.47–0.80 (Space and Furnishings: 0.47; Personal Care Routines: 0.56; Listening and Talking: 0.79; Activities: 0.79; Interaction: 0.80; Program Structure: 0.70; Parents and Staff: 0.68).¹

In a study examining correlations between the ITERS-R and the Infant CLASS that included teachers and caregivers in 30 infant classrooms, the overall ITERS-R score was correlated with each of the four dimensions of quality on the CLASS ($r = 0.54-0.65$). As expected, there were few significant correlations

^a Cost information was obtained on February 28, 2019 from the Environment Rating Scales Institute website.

between Infant CLASS and ITERS-R structural features and strong correlations between Infant CLASS and ITERS-R process features ($r = 0.58-0.73$).³

In a study examining correlations between the ITERS-R and the Quality of Caregiver-Child Interactions for Infants and Toddlers (Q-CCIIT) measure in 65 center-based I/T classrooms, the overall ITERS-R score was moderately correlated with each of the Q-CCIIT scales. The strongest correlation was with the Q-CCIIT Support for Social-Emotional Development ($r = 0.54, p < .001$), followed by Support for Language and Literacy Development ($r = 0.36, p < .01$), and Support for Cognitive Development ($r = 0.31, p < .05$). There were few significant correlations between Q-CCIIT positive scales and Space and Furnishings, Personal Care, and child/adult ratio. There were moderate correlations between Q-CCIIT Support for Social-Emotional Development scale and ITERS-R Social Interaction, Activities, and Program Structure ($r = 0.41-0.54$).⁴

This measure was included in the Quality of Early Childhood Care and Education Settings: A Compendium of Measures prepared by Child Trends for OPRE.⁵ Please refer to the compendium for in-depth information on this measure.

References

- ¹Harms, T., Cryer, D., Clifford, R. M. (2003). *Infant/Toddler Environment Rating Scale—Revised edition*. New York, NY: Teachers College Press.
- ²Bandel, E., Aikens, N., Vogel, C. A., Boller, K., & Murphy, L. (2014). *Observed quality and psychometric properties of the CLASS-T in the Early Head Start Family and Child Experiences Survey*. Washington, DC: Mathematica Policy Research.
- ³Jamison, K. R., Cabell, S. Q., LoCasale-Crouch, J., Hamre, B. K., & Pianta, R. C. (2014). CLASS-Infant: An observational measure for assessing teacher-infant interactions in center-based child care. *Early Education & Development, 25*, 553–572.
- ⁴Atkins-Burnett, S., Monahan, S., Tarullo, L., Xue, Y., Cavadel, E., Malone, L., & Akers, L. (2015). *Measuring the Quality of Caregiver-Child Interactions for Infants and Toddlers (Q-CCIIT)*. OPRE Report 2015-13. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- ⁵Halle, T., Vick Whittaker, J. E., & Anderson, R. (2010). *Quality in early childhood care and education settings: A compendium of measures* (2nd ed.). Washington, DC: Child Trends. Prepared by Child Trends for the Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from https://www.acf.hhs.gov/sites/default/files/opre/complete_compendium_full.pdf

Infant-Toddler Program Quality Assessment from HighScope

How is it used with I/T teachers and caregivers?

The Infant-Toddler Program Quality Assessment (PQA)¹ from HighScope is designed to measure program quality and identify I/T teacher and caregiver training needs in center-based child care programs serving children ages 6 weeks to 3 years. Although it includes items that assess physical features (for example, those related to the learning environment) and aspects of the program in general (for example, those related to program management), it also has items that assess teacher or caregiver competencies (for example, those associated with adult-child interaction). It is designed to be used for professional development, self-assessment and monitoring, as well as research and evaluation.

What does it measure?

The measure assesses **knowledge and skills**. Specifically, it includes items depicting best practices in the field across seven domains (Form A includes four subscales that comprise classroom-level items and Form B includes three subscales that comprise agency-level items):

- Learning environment
- Schedules and routines
- Adult-child interaction
- Curriculum planning and child observation
- Parent involvement and family services
- Staff qualifications and staff development
- Program management

How is it administered?

The measure comprises an observation and interview; it can also be completed as a self-assessment. The first four subscales in form A are completed primarily through observation. The fifth subscale of Form A and all three subscales in Form B are completed through interviews, and are supplemented with information obtained during observations. The observation items involve documenting typical behaviors of children and teachers and caregivers across the program day.^a Observers use a 5-point scale to rate each item using anecdotal notes based on classroom observation and staff interviews. “Each item contains descriptors that anchor the scoring decision and make it clear what types of caregiving practices, classroom materials, and agency policies contribute to a high-quality setting. Unlike many compliance measures, which typically permit only yes-no scores on items, the PQA defines quality along a continuum. These multiple levels allow raters to indicate with greater specificity a program’s current status and needs for improvement.” (p. 2).

^a In full-day programs, it is recommended that data collectors completing Part A observe each part of the day at least once to obtain evidence of consistency in caregiver behaviors. In half-day programs, it is recommended that data collectors observe the full session.

Cost: Materials reviewed did not reference costs associated with obtaining the measure or training for this measure.

Are there any training requirements?

Training is recommended and is offered through HighScope.²

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

The reliability and validity of Form A of the infant-toddler PQA was examined in 30 infant-toddler classrooms^a across Michigan and Indiana. Cronbach's alphas were calculated for each subscale and were as follows: 0.79 for learning environment, 0.86 for schedules and routines, 0.82 for adult-child interaction, and 0.90 for curriculum planning and child observation. Inter-rater reliability ranged from 0.70-0.83 and test-retest correlations (after approximately two weeks) ranged from 0.80-0.89 ($p < .001$). The overall Form A score was positively associated with the overall ITERS score ($r = 0.66, p < .01$). Correlations with subscale scores were in the expected direction (for example, the infant-toddler PQA Adult-child interaction subscale was positively associated with the ITERS Listening and talking subscale [$0.67, p < .01$] and the infant-toddler PQA Curriculum planning and child observation subscale was positively associated with the ITERS Activities subscale [$r = 0.65, p < .01$]).¹

References

¹Lockhart, S., Epstein, A., Claxton, J., Xiang, Z. (2014). Infant-Toddler Program Quality Assessment (PQA): Administration Manual. Ypsilanti, MI: High Scope Press.

²Training Coordinator, HighScope Educational Research Foundation, 600 North River Street, Ypsilanti, MI 48198-2898; phone: 734.485.2000 ext. 237; FAX: 734.485.4467; email: training@highscope.org.

^a The sample for inter-rater reliability comprised 40 classrooms and validity data was analyzed for 26 classrooms.

Observational Record of the Caregiving Environment

How is it used with I/T teachers and caregivers?

The Observational Record of the Caregiving Environment (ORCE)¹ was developed for the NICHD Study of Early Child Care and Youth Development (SECCYD)² to address the quality of nonmaternal child care settings serving children ages 6 months to 54 months. Separate forms of the measure are available for children who are approximately 6, 15, 24, 36, and 54 months old. The different forms vary slightly to be age appropriate but assess similar dimensions of quality; thus, there is considerable overlap in the caregiver behaviors observed at each age. The ORCE has three parts: (1) a Qualitative Rating Scale, (2) a Behavior Checklist and (3) Structural Variables. Only the Qualitative Rating Scale and Behavior Checklist assess teacher and caregiver competencies.

What does it measure?

The measure assesses **skills**. Specifically, it assesses emotional support and cognitive support provided to children by teachers and caregivers along the following dimensions:

- Sensitivity/Responsiveness to Distress
- Sensitivity/Responsiveness to Non-Distress
- Lack of Intrusiveness
- Lack of Detachment/Disengagement
- Stimulation of Cognitive Development
- Positive Regard for the Child
- Lack of Negative Regard for the Child
- Lack of Flatness of Affect
- Fostering Exploration
- Language Stimulation
- Positive Behavior Toward Child
- Negative Behavior Toward Child

How is it administered?

The measure is an observation conducted for two 44-minute cycles. Each cycle comprises three 10-minute segments, during which observers alternate between 30-second observe and 30-second record intervals to assess the incidence of specific behaviors. During the 30-second observe intervals, observers focus on the teacher or caregiver's behavior with the target child (and in some cases, with other children in the classroom); during the record intervals, observers complete the behavior checklist. Following each 10-minute segment, for 2 minutes observers complete qualitative ratings of teacher/caregiver behavior, which capture the quality and nuances of teacher/caregiver behaviors in relation to the target child's behaviors. During the final 8-minute period, observers take descriptive notes devoted exclusively to the qualitative ratings across all target children. At the end of this period, observers complete a final set of qualitative ratings, this time reflecting the collective experience of the target children as a whole. After observers complete two 44-minute ORCE observation cycles, they complete the end-of-visit ratings based on their overall impressions during the observation.

- For the qualitative rating scales, observers use a 4-point scale to rate each dimension, where 1 = not at all characteristic and 4 = highly characteristic. Higher scores indicate higher observed quality. In addition, three composite variables are created:

- An overall qualitative rating, which is the mean of Sensitivity/Responsivity to Non-Distress, Lack of Detachment/Disengagement, Stimulation of Cognitive Development, Positive Regard for Child, Lack of Flatness of Affect, and Fostering Exploration
- An overall positive rating, which is a composite defined as the mean of Sensitivity/Responsivity to Non-Distress, Stimulation of Cognitive Development, Positive Regard for Child, and Fostering Exploration.
- An overall lack of negative rating, which is a composite defined as the mean of Lack of Detachment/Disengagement, Intrusiveness, Negative Regard for the Child, and Flatness of Affect.
- The Behavior Checklist provides a record of the occurrence (or quantity) of specific teacher/caregiver behaviors (for example, the frequency with which the teacher/caregiver responds to the child's vocalizations). Three composite measures are constructed from the Behavior Checklist:
 - Language stimulation, which is a composite variable based on the mean occurrence across segments on the number of 30-second observation intervals in which the teacher/caregiver responded to the child's vocalizations or talk, read aloud to the child, asked the child questions, directed other talk to the child, and stimulated the child's cognitive development (for 6- and 15-month forms) or taught the child academic skills (for 24- and 36-month forms).
 - Positive behavior toward child, which is a composite variable based on the mean occurrence across segments on the number of 30-second observation intervals in which the teacher/caregiver shared positive affect (6- and 15-month forms), made positive physical contact, spoke positively to child (15- to 36-month forms), and engaged in mutual exchange (24 and 36 months).
 - Negative behavior toward child, which is a composite variable based on the mean occurrence across segments on the number of 30-second observation intervals in which the teacher/caregiver spoke negatively to the child, used negative physical actions, restricted child activities, or restricted the child in a physical container (6- and 15-month forms).

Scores for the Behavior Checklist composites can range from 0 to 10.

Cost: Materials reviewed did not reference costs associated with obtaining the measure or training for this measure.

Are there any training requirements?

For the NICHD study, prospective observers were trained over a period of two days followed by practice administering the instrument and tests of reliability. As described in one article, "Data collectors were required to achieve at least 90% agreement with criterion coding to be certified. To maintain certification, data collectors were re-examined every 4 months using the same videotape procedure"² (p. 300).

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Extensive information on the psychometric properties of the ORCE is available from the NICHD study.^{2,3} In the NICHD study, the ORCE was used to observe children in their primary child care settings (which included child care centers, child care homes, or grandparent or in-home care). In this study, 595 children were observed when they were 6 months old, 595 children were observed when they were 15 months old, 739 children were observed when they were 24 months old, and 856 children were observed when they were 36 months old. Composite scores were created for positive caregiving and frequency of

language stimulation. Cronbach's alphas for the positive caregiving composite were 0.89 at 6 months, 0.88 at 15 months, 0.87 at 24 months, and 0.83 at 36 months; those for language stimulation were 0.88 at 15 months, 0.92 at 24 months, and 0.90 at 36 months. ORCE scores were related to a number of child measures of cognitive skills and language development.³

This measure was included in the Quality of Early Childhood Care and Education Settings: A Compendium of Measures prepared by Child Trends for OPRE.⁴ Please refer to the compendium for in-depth information on this measure.

References

- ¹NICHD Early Child Care Research Network. (1996). Observational record of the caregiving environment. *Early Childhood Research Quarterly*, 11, pp. 269–306.
- ²Bradley, R., Caldwell, B. & Corwyn, R. (2003). The Child Care HOME Inventories: Assessing the quality of child care homes. *Early Childhood Research Quarterly*, 18(3), 294–309.
- ³NICHD Early Child Care Research Network. (2000). The relation of child care to cognitive and language development. *Child Development*, 71, 958–978.
- ⁴Halle, T., Vick Whittaker, J. E., & Anderson, R. (2010). *Quality in early childhood care and education settings: A compendium of measures* (2nd ed.). Washington, DC: Child Trends. Prepared by Child Trends for the Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from https://www.acf.hhs.gov/sites/default/files/opre/complete_compendium_full.pdf

Parent Modernity Scale

How is it used with I/T teachers and caregivers?

The Parent Modernity Scale¹ was designed for use with parents to assess beliefs about raising children but has been used with I/T teachers and caregivers in center-based settings and family child care homes. For example, it was used in research with I/T teachers and caregivers in both center-based and family child care settings in an evaluation of the Program for Infant/Toddler Care (PITC)² and with I/T teachers and caregivers in family child care homes in the Quality Intervention for Early Care and Education (QUINCE) study.³

What does it measure?

The measure assesses **attributes**. Specifically, it assesses the extent to which teachers and caregivers hold traditional/authoritarian versus progressive/democratic beliefs in relation to raising children.

How is it administered?

The measure is a survey (30 items). Teachers and caregivers use a 5-point scale to complete each item, where 1 = strongly disagree and 5 = strongly agree. A total score is calculated by summing scores on all items; higher scores indicate more traditional beliefs about raising young children. Two sub scores are also calculated, “progressive/democratic beliefs (reflects attitudes favoring self-directed child behavior) and traditional/authoritarian beliefs (reflects attitudes that child behavior should follow adult directives)”² (p. 26).

Cost: Materials reviewed did not reference costs associated with obtaining the measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure’s reliability and validity with I/T teachers and caregivers?

In the PITC evaluation, which included I/T teachers and caregivers in 92 centers and 159 family child care homes, Cronbach’s alpha for the total modernity score was 0.86.² In the QUINCE study, which included I/T teachers and caregivers in 258 family child care homes,³ Cronbach’s alphas were 0.30 for progressive, 0.77 for traditional, and 0.73 for the total modernity score.³

References

- ¹Schaefer E. S., & Edgerton, M. (1985). Parent and child correlates of parental modernity. In I. E. Sigel (Ed.), *Parental belief systems* (pp. 287–318). Hillsdale, NJ: Erlbaum.
- ²Weinstock, P., Bos, J., Tseng, F., Rosenthal, E., Ortiz, L., Dowsett, C., . . . & Bentley, A. (2012). *Evaluation of Program for Infant/Toddler Care (PITC): An on-site training of caregivers. Final report. NCEE 2012-4003*. Washington, DC: National Center for Education Evaluation and Regional Assistance.

^a Study did not explicitly state the ages of children served but supporting information in the study suggests these FCCs served infants and/or toddlers.

³Bryant, D. M., Wesley, P. W., Burchinal, M., Sideris, J., Taylor, K., Fenson, C., & Iruka, I. U. (2009). The QUINCE-PFI study: An evaluation of a promising model for child care provider training: Final report. Chapel Hill, NC: FPG Child Development Institute.

Parental Reflective Functioning Questionnaire

How is it used with I/T teachers and caregivers?

The Parental Reflective Functioning Questionnaire¹ (PRFQ) was designed to assess parental reflective functioning but has also been adapted for use for research with teachers and caregivers in family child care homes.^{2a}

What does it measure?

The measure assesses **attributes**. Specifically, it assesses reflective functioning and has three subscales:

- Prementalizing, which reflects teachers' and caregivers' struggle with keeping the child's perspective in mind (for example, the extent to which the teacher/caregiver feels that the child's fussiness is meant to annoy him/her).
- Certainty of Mental States, which reflects teachers' and caregivers' understanding that children's mental states are not always transparent (for example, the extent to which the teacher/caregiver feels like he/she always knows the reason for the child's behavior)
- Interest and Curiosity, which reflects teachers' and caregivers' interest in children's mental states (for example, the extent to which the teacher/caregiver is curious about finding out how the child feels).

How is it administered?

The measure is a survey (18 items). Teachers and caregivers complete each item using a 7-point scale, where 1 = strongly disagree and 7 = strongly agree. For the adapted version,² teachers and caregivers were asked to respond to the items while keeping in mind a child whose behavior they found "challenging." Ratings were averaged for each of the three subscales. Higher scores on the Prementalizing subscale indicated a difficulty in keeping the child's perspective in mind, higher scores on Certainty of Mental States subscale reflected a strong sense of certainty of children's mental states, and higher scores on the Interest and Curiosity subscale indicated higher rates of interest in thinking about what children are thinking and feeling.

Cost: Materials reviewed did not reference costs associated with obtaining the measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of evidence of the measure's reliability and validity with I/T teachers and caregivers?

In a study that included teachers and caregivers from 51 family child care homes, Cronbach's alphas for the scales were as follows: Prementalizing: 0.55; Certainty of Mental States: 0.68; Interest and Curiosity:

^a Study did not explicitly state the ages of children served but supporting information in the study suggests these FCCs served infants and/or toddlers.

0.71. Higher scores on the prementalizing scale were associated with lower self-efficacy ($r = -0.35$, $p < .05$), lower resources for job-related stress ($r = -0.36$, $p < .01$), and higher rates of depressive symptoms ($r = 0.31$, $p < .05$). Higher scores on Certainty of Mental States were associated with higher rates of self-efficacy ($r = 0.31$, $p < .05$).²

References

- ¹Fonagy, P., Luyten, P., Moulton-Perkins, A., Lee, Y-W., Warren, F., Howard, S., et al. (2016). Development and validation of a self-report measure of mentalizing: The Reflective Functioning Questionnaire. *PLoS ONE* 11(7): e0158678. Retrieved from <https://doi.org/10.1371/journal.pone.0158678>
- ²Gray, S. A. (2015). Widening the circle of security: A quasi-experimental evaluation of attachment-based professional development for family child care providers. *Infant Mental Health Journal*, 36(3), 308–319.

Parenting Interactions with Children: Checklist of Observations Linked to Outcomes

How is it used with I/T teachers and caregivers?

The Parenting Interactions with Children: Checklist of Observations Linked to Outcomes (PICCOLO)¹ is designed for use with parents of children ages 10 months to 47 months, but has also been used in research with I/T teachers and caregivers in center-based settings² and family child care homes.^{2,3}

What does it measure?

The measure assesses **skills**. Specifically, it includes items in four domains:

- Affection
- Responsiveness
- Encouragement
- Teaching

How is it administered?

The measure is an observation. Observers use a 3-point scale to complete each item, where 0 = absent (no behavior observed), 1 = barely (brief or minor behavior), and 2 = definite (strong or frequent behavior). Domain scores are created by summing item scores within each domain. The developers used the PICCOLO in conjunction with the Environment Rating Scales and the Arnett Caregiver Interaction Scale in observations conducted over a 2.5-3 hour period in center-based settings and family child care homes.²

Cost: ^a

- PICCOLO tool: \$28
- PICCOLO Provider Starter Kit (which includes the User's Guide and one package of forms): \$60
- Training DVD: \$155
- Cost of one-day training seminar: \$3,000
- Cost of two-day training seminar: \$5,800

Are there any training requirements?

Observers are required to attend a training conducted by the measure developers and be trained to reliability during the two-day training seminar. While most participants are reliable after attending the two-day seminar, additional practice with the training DVD is encouraged.

^a Cost information was obtained on June 18, 2019 from the Brookes Publishing website.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

The developers conducted a study that included 41 I/T teachers and caregivers (from 27 classrooms), 127 early childhood teachers and caregivers from center-based settings (from 86 classrooms), and 80 providers (from 79 family child care homes). However, data from the 27 I/T teachers and caregivers was excluded from analysis due to the small sample size. The mean age of the children in the center-based sample was 32.29 months and that of the children in the family child care homes was 40.26 months (the age range of the children served was not provided in the study).

In the center-based sample, correlations between ECERS-R total scores and PICCOLO scores ranged from $r = 0.52-0.60$, $p < .001$ with PICCOLO domain scores and $r = 0.64$, $p < .001$ with the PICCOLO total score. Correlations between the Total Arnett CIS score and PICCOLO scores were also high (correlation with PICCOLO total score was $r = 0.83$, $p < .001$ and those with domain scores ranged from $r = 0.66 - 0.84$, $p < .001$). In the family child care sample, correlations between FCCERS-R total scores and PICCOLO total scores ranged from $r = 0.48-0.59$, $p < .001$ with PICCOLO domain scores and $r = 0.60$, $p < .001$ with the PICCOLO total score. Correlations between the Total Arnett CIS score and PICCOLO scores were also high (correlation with PICCOLO total score was $r = 0.83$, $p < .001$ and those with domain scores ranged from $r = 0.67 - 0.79$, $p < .001$).²

References

- ¹Roggman, L. A., Cook, G. A., Innocenti, M. S., Jump Norman, V., & Christiansen, K. (2013). Parenting interactions with children: Checklist of observations linked to outcomes (PICCOLO) in diverse ethnic groups. *Infant Mental Health Journal, 34*(4), 290–306.
- ²Norman, V. J., & Christiansen, K. (2013). Validity of the PICCOLO tool in child care settings: Can it assess caregiver interaction behaviors? *Infant Mental Health Journal, 34*(4), 319–329.
- ³Porter, T., & Reiman, K. (2015). *Examining quality in a family child care network: An evaluation of All Our Kin*. Larchmont, NY: Early Care and Education Consulting.

Program for Infant/Toddler Care Program Assessment Rating Scale

How is it used with I/T teachers and caregivers?

The Program for Infant/Toddler Care Program Assessment Rating Scale¹ (PITC PARS) is based on constructs developed for the Program for Infant/Toddler Care (a comprehensive multimedia training system for I/T teachers and caregivers) and was originally designed to assess the implementation of the PITC approach. However, it can also be used to measure components of I/T group care in settings serving children ages birth to 3 years. There are separate versions for center-based settings and family child care homes. Although the PITC PARS includes items that focus on physical features of the care environment (for example, arrangement of child care space, safety of play materials and environment), it also has items that assess teacher and caregiver competencies (for example, responsiveness and sensitivity to children, adult use of language and communication, and relationships with families). The PITC PARS can be used for multiple purposes including research and professional development.

What does it measure?

The measure assesses **skills**. Specifically, it includes items within five subscales:

- Quality of adult’s interaction with children (for example, responsiveness and sensitivity to children, positive tone and attentiveness, responsive engagement and intervention)
- Family partnerships, cultural responsiveness, and inclusion of children with special needs (for example, relationships with families, communication with families, inclusion of children with disabilities or other special needs)
- Organization of care (for example, primary caregiving, continuity of care, group size and structure)
- Physical environment (for example, arrangement of the child care space, safety of play materials and environment, and reduced stimulation)
- Routines and record keeping (for example, healthful and safe feeding routines, healthful and safe napping, record keeping and information sharing)

How is it administered?

The measure comprises an observation, interview, and a review of program materials. As described in one study that used the PITC PARS, “To determine ratings on the PITC PARS, the assessor first notes which sub-items were observed by comparing the evidence gathered through observation, interview, or review of program materials to the rating guidance provided for each sub-item. When the evidence sufficiently meets the criteria specified in the rating guidance, the sub-item is rated as 1 = observed; otherwise, that sub-item is given a 0 rating. The four sub-item ratings for each item are summed to produce the item rating, which can range in value from 0 to 4. The item ratings for each subscale are then averaged to produce a subscale rating, which can also range in value from 0 to 4. These summary ratings averaged across the item ratings for each PITC PARS subscale fall within one of four ranges that indicate progress in implementing infant/toddler care quality. These ranges are interpreted as follows: 0–1.7 = Beginning, 1.8–2.7 = Emerging, 2.8–3.7 = Developing, and 3.8–4 = Refining”² (p. 155-156).

Cost: Administration materials and cost information for training can be obtained from WestEd Center for Child and Family Studies Evaluation Team. Costs for training vary depending on options chosen (that is,

number of individuals trained, travel costs, whether training on one or both versions of PITC PARS [there is a separate version for family child care homes]).

Are there any training requirements?

PITC PARS assessors are trained for four days (one day of classroom-style training and at least three days of observations in the field with a WestEd PITC PARS Anchor Assessor). An 80 percent inter-rater reliability across three or more successive observations is required.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In a pre-post study of 330 I/T teachers and caregivers (from 101 infant center-based classrooms, 40 toddler center-based programs, and 81 family child care homes) who participated in the PITC on-site training and technical assistance, Cronbach's alphas for the PITC PARS subscales were as follows: 0.90 for Quality of adult's interaction with children, 0.76 for Family partnerships, cultural responsiveness and inclusion of children with special needs, 0.75 for Organization of group care, 0.80 for Physical environment, and 0.70 for Routines and record keeping. In this study, high correlations were reported between the PITC PARS summary rating and the Environment Rating Scales: ITERS-R, $r = 0.84$, $p < .001$; ECERS-R, $r = 0.81$, $p < .001$; and the Family Day Care Rating Scale, $r = 0.80$, $p < .001$. Moderate correlations were reported between the PITC PARS Quality of adult's interaction with children subscale and the Arnett ($r = 0.64$, $p < .001$, with the Sensitivity subscale; $r = -0.62$, $p < .001$, with the Harshness subscale, and $r = -0.60$, $p < .001$, with the Detachment subscale).²

This measure was included in the Quality of Early Childhood Care and Education Settings: A Compendium of Measures prepared by Child Trends for OPRE.³ Please refer to the compendium for in-depth information on this measure.

References

- ¹WestEd Center for Child & Family Studies. (2007). *PITC-PARS program assessment rating scale: User's Guide for WREL Study*. San Francisco: Author.
- ²Mangione, P. L., Kriener-Althen, K., & Marcella, J. (2016). Measuring the multifaceted nature of I/T care quality. *Early Education and Development*, 27(2), 149–169.
- ³Halle, T., Vick Whittaker, J. E., & Anderson, R. (2010). *Quality in early childhood care and education settings: A compendium of measures* (2nd ed.). Washington, DC: Child Trends. Prepared by Child Trends for the Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from https://www.acf.hhs.gov/sites/default/files/opre/complete_compendium_full.pdf

Quality of Caregiver-Child Interaction for Infants and Toddlers

How is it used with I/T teachers and caregivers?

The Quality of Caregiver-Child Interaction for Infants and Toddlers (Q-CCIIT)¹ tool is designed to measure the quality of interactions between I/T teachers and caregivers and the children in their care (0–36 months). It can be used in both center-based settings and family child care homes. It can also be used for multiple purposes including research (for example in large-scale research studies such as the Early Head Start Family and Child Experiences Study: Baby FACES 2018) and professional development.

What does it measure?

The measure assesses **skills**. Specifically, it assesses the quality of I/T teacher and caregiver-child interactions in the following areas:

- Caregiver support for social-emotional development:
 - Responding contingently to distress (immediacy of response, matching response to level of distress)
 - Responding contingently to social cues (immediacy and individualization in response)
 - Responding to emotional cues (emotional availability and sensitivity)
 - Building a warm, positive relationship (smiling, using children’s names in positive ways, and so on)
 - Supervising play and activities (modeling, supporting, showing interest without taking over)
 - Responsive routines (evidence of routines, individualization)
 - Classroom limits and management (positive limits, showing appropriate behaviors, supporting positive behaviors)
- Caregiver support for cognitive development:
 - Support for object exploration
 - Scaffolding problem solving
 - Extending representational play
 - Support for concept development
 - Giving choices
 - Explicit teaching
 - Supporting peer interaction and play
 - Scaffolding social problem solving
- Caregiver support for language and literacy development
 - Use of questions
 - Conversational turn-taking
 - Varied vocabulary
 - Diversity of talk
 - Decontextualized language
 - Extending language
 - Engages children in books
 - Uses a variety of words
 - Uses a variety of types of sentences
 - Fosters a positive attitude toward books

The measure also assesses areas of concern: Overall level of chaos; Poor supervision of safety; Unsafe environment; Sanitary/healthy practices not followed; Physical harshness; Verbal harshness; Mismatch of caregiver affect/communication; Caregiver singling out children; Children ignored; Children unoccupied; Restricting children; Children overwhelmed; Children stressed by demands of environment; Adult television use; Misuse of child media

How is it administered?

The measure is an observation typically conducted over six 10-minute cycles over 2.5–3 hours. If there is more than one teacher/caregiver in the setting and a classroom estimate of quality is desired, the observer switches focus to a different teacher/caregiver in each cycle. As described by the developers, “Within the first three scales, observers rate some items in each 10-minute observation cycle, while other items are rated across the visit. When selecting a method for scoring the Q-CCIIT, we wanted to ensure that future users could calculate scores without special software. For items rated in each cycle, we first calculate the average rating across cycles and round it to the nearest whole number. These averages are then used as the score for those items, combined with the scores for the across-the-visit items from that scale, and we calculate the mean of all of the valid items in each scale. For programs using the Q-CCIIT for professional development or self-monitoring, scores can be computed by hand using a scoring sheet. For researchers or evaluators working with larger samples, a spreadsheet with formulas embedded or a statistical package will allow for computing scores based on large numbers of classrooms”¹ (p. 27).

Cost: Training costs can be obtained from the developer, Mathematica: QCIT@mathematica-mpr.com or 1-833-QCIT123 (833-724-8123).

Are there any training requirements?

Training is required. Typically, observers are trained for four days and certified at the end of training based on agreement of their ratings with those of the measurement development team, using video from two different classrooms.

What are some examples of the evidence for the measure’s reliability and validity with I/T teachers and caregivers?

The Q-CCIIT field test sample included 400 I/T classrooms (110 family child care homes and 290 center-based classrooms). These field test analyses provide psychometric evidence supporting the reliability and validity of the Q-CCIIT as a measure of teacher and caregiver quality across different types of settings. Cronbach’s alphas of 0.88 or greater were reported across multiple analytic methods. Moderate to high-moderate relationships ($r \geq .45$) were reported with the expected scales of the ORCE in all settings and with the ITERS-R or the FCCERS-R (depending on setting type). As expected, lower correlations were reported between the Q-CCIIT scales and the ITERS-R and FCCERS-R scales assessing health and safety environment. Caregiver characteristics (such as education level, experience, and caregiver reports of depressive symptoms) had a weak relationship with Q-CCIIT scales and child/adult ratios were not related to any of the Q-CCIIT scales.¹

Reference

- ¹Atkins-Burnett, S., Monahan, S., Tarullo, L., Xue, Y., Cavadel, E., Malone, L., & Akers, L. (2015). Measuring the Quality of Caregiver-Child Interactions for Infants and Toddlers (Q-CCIIT). OPRE Report 2015-13. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U. S. Department of Health and Human Services.

Strengthening Families Self-Assessment Tool for Center-Based Early Care and Education Programs

How is it used with I/T teachers and caregivers?

The Strengthening Families Self-Assessment Tool for Center-Based Early Care and Education Programs¹ is aligned with the Strengthening Families framework. It helps center-based programs serving children ages 0-5 years determine how well they are implementing strategies to strengthen families, to compare their practices with those of exemplary programs, and to identify areas for improvement. Programs can use the measure to determine the extent to which their practices help families build “protective factors” that form the basis of the Strengthening Families approach. The measure is tiered to permit use with states’ Quality Ratings and Improvement Systems (QRIS). Programs can complete an Action Plan based on their self-assessments. Although the tool is designed to assess programs and contains items that assess program policies and practices (for example, whether the program provides an orientation for families about program goals and objectives), it also has items that assess staff (including teacher and caregiver) competencies (for example, the extent to which staff are respectful when unexpected family visits occur).

What does it measure?

The measure assesses **knowledge, skills, and attributes**. It is organized around five “protective factors”:

- Parental resilience (for example, the extent to which staff acknowledge and affirm parents’ role as central in their children’s lives)
- Social connections (for example, the extent to which staff model positive social skills by welcoming all families and helping resolve conflicts among families)
- Knowledge of parenting and childhood development (for example, the extent to which staff demonstrate an understanding of child development)
- Concrete support in times of need (for example, the extent to which staff encourage parents to advocate for themselves and their child)
- Social and emotional competence of children (for example, the extent to which staff consistently respond to children in a warm and supportive way)

It also includes two additional sections related to special circumstances:

- Responding to possible child abuse or neglect (for example, the extent to which staff discuss child abuse and neglect prevention with families)
- Supporting a child’s transitions to school or other programs (for example, whether the program uses a self-assessment process [such as an annual internal review of transition activities] to improve transition practices)

How is it administered?

The measure is a self-assessment (with a rubric) that takes approximately 90 minutes to complete. Respondents use a 5-point scale to complete each item, where 1 = strongly disagree and 5 = strongly agree. Developers recommend that programs create a “self-assessment team” that includes staff with different perspectives (for example, administrative staff and/or program director, teachers and caregivers, family support staff, and parents whose children participate in the program). First, each member of the team completes the self-assessment individually and then the team meets to discuss individual scores. Team members discuss their ratings for items that differ across members and each person has the opportunity to describe why they rated the practice in a certain way and provide examples. Team members have the opportunity to re-rate their assessments after the discussion and enter the consensus version of the assessment online. Programs can then print a report showing their strengths and areas for improvement.

There are four proficiency levels or “tiers” that “represent different levels of depth of implementation”¹ (p. 1) of program practices associated with each of the protective factors:

- Baseline: items that programs can implement very easily
- Mid-level: items with a more intentional focus on supporting and engaging with parents
- High: items with a high level of focus on supporting and engaging with parents
- Comprehensive Service Programs: items that apply to centers offering comprehensive services to children and families (in addition to high quality early care and education)

Cost: There is no cost associated with using this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure’s reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any evidence for the measure’s reliability and validity with I/T teachers and caregivers.

Reference

¹Center for the Study of Social Policy. (n.d.). Strengthening Families Self-Assessment Tool for Center-Based Early Care and Education Programs. Retrieved from <https://cssp.org/wp-content/uploads/2018/10/CENTER-BASED-EARLY-CARE-AND-EDUCATION-PROGRAM-SELF-ASSESSMENT.pdf>

Strengthening Families Self-Assessment Tool for Family Child Care Programs

How is it used with I/T teachers and caregivers?

The Strengthening Families Self-Assessment Tool for Family Child Care Programs¹ is aligned with the Strengthening Families framework. It is designed for teachers and caregivers in family child care homes. Teachers and caregivers can use the measure to determine the extent to which their practices help families build “protective factors” that form the basis of the Strengthening Families approach. The measure is tiered to permit use with states’ QRIS systems. Teachers and caregivers can complete an Action Plan based on their self-assessments.

What does it measure?

The measure assesses **knowledge, skills, and attributes**. It is organized around five “protective factors”:

- Parental resilience (for example, whether teachers and caregivers demonstrate that parents are valued by being aware of the barriers that limit parental involvement)
- Social connections (for example, whether teachers and caregivers help parents find ways to communicate with each other)
- Knowledge of parenting and childhood development (for example, whether teachers and caregivers respond to children in developmentally appropriate ways)
- Concrete support in times of need (for example, whether teachers and caregivers respond in times of crisis by listening to parents, showing concern, and engaging in self-disclosure, if appropriate)
- Social and emotional competence of children (for example, whether teachers and caregivers provide ideas for promoting children’s social and emotional learning at home)

It also includes two additional sections related to special circumstances:

- Responding to possible child abuse or neglect (for example, whether teachers and caregivers are alert to possible signs of abuse or neglect)
- Supporting a child’s transitions to school or other programs (for example, whether teachers and caregivers provide support to families during a child’s transition to a new program or to kindergarten)

How is it administered?

The measure is a self-assessment (with a rubric) that takes approximately 20 to 30 minutes to complete. For each item, respondents indicate “I do this”, “I do not do this”, or “Not relevant”. There are three proficiency levels or “tiers” that “represent different levels of depth of implementation”¹ (p. 1) of practices associated with each of the protective factors:

- Baseline: items that teachers and caregivers should be able to implement in their daily interactions
- Mid-level: items with a more intentional focus on supporting and engaging with parents
- High: items with a high level of focus on supporting and engaging with parents

Cost: There is no cost associated with using this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of evidence of the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any examples of reliability and validity with I/T teachers and caregivers related to this measure.

Reference

¹Center for the Study of Social Policy. (n.d.). Strengthening Families Self-Assessment Tool for Family Child Care Programs. Retrieved from <https://cssp.org/wp-content/uploads/2018/10/FAMILY-CHILD-CARE-PROGRAM-SELF-ASSESSMENT.pdf>

Taking Care of Young Children Questionnaire

How is it used with I/T teachers and caregivers?

The Taking Care of Young Children Questionnaire was used to assess I/T teachers' and caregivers' attitudes toward working in centers and family child care homes. It has been used in research such as an evaluation of the on-site caregiver training component of the Program for Infant/Toddler Care (PITC).¹

What does it measure?

The measure assesses **attributes** (that is, teachers' and caregivers' "perceptions of rewards and concerns associated with working in a child care environment"¹ (p. 26)).

How is it administered?

The measure is a survey (28 items). Teachers and caregivers use a 4-point scale to complete each item, where 1 = not at all a reward/concern and 4 = extremely a concern/reward. Example items include the extent to which teachers and caregivers feel like children's happiness is a rewarding part of being a caregiver and the extent to which they find a child's whining to be a concern. Items from the "concern" portion of the questionnaire are reverse scored. Scores across items are summed to provide a total score (ranging from 28 to 112); a higher score indicates more positive attitudes related to taking care of young children.

Cost: Materials reviewed did not indicate a cost associated with obtaining this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In the PITC evaluation, which included I/T teachers and caregivers from 92 centers and 159 family child care homes, Cronbach's alpha for the measure was 0.75.³

Reference

- ¹Weinstock, P., Bos, J., Tseng, F., Rosenthal, E., Ortiz, L., Dowsett, C., . . . & Bentley, A. (2012). Evaluation of Program for Infant/Toddler Care (PITC): An on-site training of caregivers. Final Report. NCEE 2012-4003. Washington, DC: National Center for Education Evaluation and Regional Assistance.

Teacher Behavior Rating Scale

How is it used with I/T teachers and caregivers?

The Teacher Behavior Rating Scale¹ (TBRS) was designed for use with teachers and caregivers of preschool-aged children in Head Start classrooms.² However, it has also been used to examine teacher and caregiver responsiveness and instruction in toddler classrooms (2- and 3-year-olds).³ Although the TBRS includes items that focus on physical features of the classroom environment (for example, presence of math manipulatives), it also has items assess teacher or caregiver competencies (for example, whether teacher uses scaffolding language).

What does it measure?

The measure assesses **skills**. Specifically, it is designed to assess teacher and caregiver responsiveness and instruction. It comprises 13 subscales:³

- Classroom community
- Sensitivity
- Discipline
- Learning centers
- Oral language
- Book reading
- Team teaching
- Written expression
- Print and letter
- Phonological awareness
- Mathematics
- Lesson plans
- Portfolios

How is it administered?

The measure is an observation conducted over 2.5–3 hours. Most items are rated either on a 3-point quantity scale (rare, sometimes, often) or a 4-point quality scale (low, medium low, medium high, high). Observers must observe at least one large-group activity, one small-group activity, and transitions between activities. They must also examine the teacher/caregiver's lesson plans and student work samples.²

Cost: Materials reviewed did not reference costs associated with obtaining the measure.

Are there any training requirements?

In one study, observer training included “(a) a 2-day training with a manual and video exemplars for all behaviors of interest, (b) practice group coding with six videos, (c) independent video coding with two videos, and (d) three to five classroom coding sessions with a reliable coder. Trainees were required to achieve at least 80% agreement with the master coder to be considered reliable. Ongoing drift checks were conducted”³ (p. 531).

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In a study with I/T teachers and caregivers in 65 classrooms serving 2- and 3-year-old children, interrater reliability ranged from 0.71 to 1.00. The quality and quantity scores were highly correlated ($r = 0.85-0.88$).³

This measure was included in the Quality of Early Childhood Care and Education Settings: A Compendium of Measures prepared by Child Trends for OPRE.⁴ Please refer to the compendium for in-depth information on this measure.

References

- ¹Landry, S. H., Crawford, A., Gunnewig, S., & Swank, P. R. (2000). *The CIRCLE–Teacher Behavior Rating Scale*. Unpublished research instrument. Houston, TX: Center for Improving the Readiness for Children for Learning and Education, University of Texas Health Science Center.
- ²Assel, M. A., Landry, S. H., & Swank, P. R. (2008). Are early childhood classrooms preparing children to be school ready?: The CIRCLE Teacher Behavior Rating Scale. In L. Justice & C. Vukelich (Eds.), *Achieving Excellence in Preschool Literacy Instruction*, (pp. 120-135). New York, NY: The Guilford Press.
- ³Landry, S. H., Zucker, T. A., Taylor, H. B., Swank, P. R., Williams, J. M., Assel, M., . . . & Phillips, B. M. (2014). Enhancing early child care quality and learning for toddlers at risk: The responsive early childhood program. *Developmental psychology*, *50*(2), 526.
- ⁴Halle, T., Vick Whittaker, J. E., & Anderson, R. (2010). *Quality in early childhood care and education settings: A compendium of measures* (2nd ed.). Washington, DC: Child Trends. Prepared by Child Trends for the Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from https://www.acf.hhs.gov/sites/default/files/opre/complete_compendium_full.pdf

Teacher Beliefs Scale

How is it used with I/T teachers and caregivers?

The Teacher Beliefs Scale (TBS)¹ has typically been used to measure teacher beliefs about classroom practice in Head Start settings with teachers of preschool aged children, including in the Head Start Family and Child Experiences Survey (FACES) study since the 2000 cohort.² However, it has also been used in the QUINCE study with I/T teachers and caregivers in family child care homes.^{3a}

What does it measure?

The measure assesses **attributes**. Specifically, it measures teacher and caregiver beliefs related to developmentally appropriate (for example, children should be allowed to choose their own activities) and inappropriate (for example, children should color within the lines) practices

How is it administered?

The I/T version of the TBS is a survey (14 items). I/T teachers and caregivers use a 5-point scale to complete each item, where 1 = strongly disagree and 5 = strongly agree. A total score, a Developmentally Appropriate Attitude scale score, and a Developmentally Inappropriate Beliefs scale score are created.²

Cost: Materials reviewed did not indicate a cost associated with obtaining this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In a study conducted with teachers and caregivers serving children in 258 family child care homes, the Cronbach's alpha for the total score was 0.69.³

References

- ¹Burts, D. (1991). Teacher beliefs scale. Baton Rouge, LA: Baton Rouge School of Human Ecology, Louisiana State University.
- ²Stephens, S. A., Craig, D., & Ferguson, D. (2018). Head Start Family and Child Experiences Survey (FACES) bibliography. Retrieved from <https://www.researchconnections.org/childcare/resources/35542/pdf>
- ³Bryant, D. M., Wesley, P. W., Burchinal, M., Sideris, J., Taylor, K., Fenson, C., and Iruka, I. U. (2009). The QUINCE-PFI Study: An evaluation of a promising model for child care provider training: Final report. Retrieved from <http://www.researchconnections.org/childcare/resources/18531/pdf>

^a Study did not explicitly state the ages of children served but supporting information in the study suggests these FCCs served infants and/or toddlers.

Teacher Care Patterns Questionnaire

How is it used with I/T teachers and caregivers?

The Teacher Care Patterns Questionnaire (TCPQ)¹ was designed to assess early childhood teachers and caregivers working with children ages eight weeks through 5 years in center-based classrooms. It is has been used in a study of a professional development intervention, Hearts and Minds on Babies, implemented in Early Head Start classrooms across sites in Michigan.²

What does it measure?

The measure assesses **attributes**. Specifically, it assesses teachers' internal representation of their roles as caregivers. Exploratory factor analysis of the TCPQ supported a three-factor solution:

- Role integration (for example, the extent to which teachers and caregivers felt that children loved and trusted them)
- Role rumination (for example, the extent to which teachers and caregivers felt children helped them cheer up when they felt sad or angry)
- Role overwhelm (for example, the extent to which teachers and caregivers felt the children made them feel out of control)

How is it administered?

The measure is a survey (30 items). Teachers and caregivers use a 5-point scale to complete each item, where 1 = strongly disagree and 5 = strongly agree.

Cost: Materials reviewed did not indicate a cost associated with obtaining this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In a study of 265 teachers and caregivers from center-based settings (127 taught in I/T classrooms and 138 taught in preschool classrooms).¹ Cronbach's alphas for role integration, role rumination, and role overwhelm were 0.63, 0.78, and 0.85 respectively. Scores on the TCPQ were associated with teacher burnout. Specifically, "Teachers' internal representations of their caregiving roles were significantly related to teachers' sense of personal accomplishment. Role integration ($r = 0.50, p < .001$) and role rumination ($r = 0.28, p < .001$) were both positively associated with personal accomplishment. Role overwhelm showed a negative correlation ($r = -0.49, p < .001$) with personal accomplishment. Teachers' internal representations of their caregiving roles were significantly related to emotional exhaustion. Role integration was negatively related to emotional exhaustion, ($r = -0.24, p < .001$). There was no significant association between emotional exhaustion and role rumination. However, role overwhelm showed a positive correlation with emotional exhaustion, ($r = 0.51, p < .001$). Teachers' internal representations of their caregiving roles were significantly related to depersonalization. Role integration ($r = -0.39, p < .001$) and role rumination ($r = -0.21, p < .01$) both showed negative associations with depersonalization. Role overwhelm, by contrast, showed a positive correlation with depersonalization, ($r = 0.58, p < .001$)"¹ (p. 91).

References

¹Shine, B. K. (2016). *Caring about caregivers: An examination of early childhood educators' internal representations of their roles in relation to burnout* (Master's thesis). Retrieved from <https://pqdtopen.proquest.com/doc/1821349537.html?FMT=AI>

²*Early Head Start University Partnerships: Building the Evidence Base for Infant/Toddler Center-Based Programs, 2015-2020*. Office of Planning, Research, and Evaluation, Administration of Children and Families, <https://www.acf.hhs.gov/opre/early-head-start-university-partnerships-building-the-evidence-base-for-infant/toddler-center-based-programs-2015-2020>.

Teacher Opinion Survey-Revised

How is it used with I/T teachers and caregivers?

The Teacher Opinion Survey-Revised¹ (TOS-r) is designed to assess early childhood teachers' and caregivers' perceived efficacy in relation to managing children's behavior and making a difference in children's lives.² It has been used to assess teachers and caregivers in both centers and family child care homes.

What does it measure?

The TOS-r measures **attributes**. Specifically, it is designed "to assess early childhood teachers' perceived efficacy (competence and confidence) in managing children's challenging behaviors and on impacting children's lives"² (p. 313).

How is it administered?

The TOS-r is a survey (13 items). Teachers and caregivers use a 5-point scale to complete each item, where 1 = strongly disagree and 5 = strongly agree. Higher scores on this measure (range = 13–65) "reflect higher perceived competencies in managing difficult behaviors and impacting children's lives"² (p. 313).

Cost: Materials reviewed did not indicate a cost associated with obtaining this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

In a quasi-experimental evaluation of an attachment-based professional development that included 51 family child care providers,^a Cronbach's alpha for the measure was 0.70. In this study, teachers' and caregivers' efficacy was associated with their resources for job-related stress ($r = .34, p < .05$) and certainty in understanding children's mental states ($r = .31, p < .05$); lower self-efficacy was associated with greater difficulties in understanding children's mental states ($r = -.35, p < .05$).²

References

- ¹ Geller, S., & Lynch, K. (2000). *Teacher Opinion Survey—Revised*. Richmond, VA: Virginia Commonwealth University Intellectual Property Foundation and Wingspan, LLC.
- ² Gray, S. A. (2015). Widening the Circle of Security: A quasi-experimental evaluation of attachment-based professional development for family child care providers. *Infant Mental Health Journal, 36*(3), 308–319.

^a Study did not explicitly state the ages of children served but supporting information in the study suggests these FCCs served infants and/or toddlers.

Teacher Satisfaction Inventory

How is it used with I/T teachers and caregivers?

The Teacher Satisfaction Inventory¹ (TSI) was designed to assess aspects of teacher health and job satisfaction and has been used with teachers and caregivers in toddler classrooms.² It includes items that assess teacher and caregiver competencies (for example, teacher/caregiver feelings about work and their perception of fairness in pay) as well as to assess other factors such as teacher wages.

What does it measure?

The measure assesses **attributes**. Specifically, it assesses “several areas of teacher health and job satisfaction with their jobs including relationships with colleagues, professional development opportunities, and their physical, financial, and emotional health. The TSI includes seven sections representing the focus areas of the measure: ‘work environment and relationships’, ‘professional development’, ‘your center’, ‘your job/classroom’, ‘health’, ‘finances’, and ‘personal demographics’”² (p. 5).

How is it administered?

The TSI is a survey. Teachers and caregivers complete a number of questions of varying formats including yes/no questions, check all that apply, check one, and Likert-type questions with response options from 1 to 5.

Cost: Materials reviewed did not indicate a cost associated with obtaining this measure.

Are there any training requirements?

There are no training requirements associated with this measure.

What are some examples of the evidence for the measure’s reliability and validity with I/T teachers and caregivers?

In a study that included 94 toddler teachers and caregivers, authors used generalized linear models that controlled for classroom structural quality and teachers/caregiver education and experience to examine associations of the TSI with CLASS domains and toddler outcomes. “Results from the generalized linear model with teachers’ wages, perception of the fairness of their wage both in the profession and in their specific programme, feelings about their work, and autonomy in the work environment predicting scores on the CLASS Emotional Support suggest that teachers’ ability to make decisions regarding the hiring of teachers is associated positively with emotional support ($\beta = .47$, $SE = .16$, $p = .003$) and teachers who perceive that their salary is not fair compared to others in the profession were in classrooms rated lower in Emotional Support ($\beta = .61$, $SE = .31$, $p = .048$) (p. 8).”²

References

¹Cassidy, D. (2016). Teacher Satisfaction Inventory (TSI). Unpublished coding system.

²Cassidy, D. J., King, E. K., Wang, Y. C., Lower, J. K., & Kintner-Duffy, V. L. (2017). Teacher work environments are toddler learning environments: teacher professional well-being, classroom emotional support, and toddlers’ emotional expressions and behaviours. *Early Child Development and Care*, 187(11), 1666–1678.

Teaching Pyramid Infant-Toddler Observation Scale for Infant-Toddler Classrooms

How is it used with I/T teachers and caregivers?

The Teaching Pyramid Infant-Toddler Observation Scale for Infant-Toddler Classrooms (TPITOS) is designed to assess the fidelity of implementation of practices associated with the Pyramid Model^a in I/T settings (ages birth to 3 years).¹ It can also be used for professional development. Although the TPITOS includes items that assess physical features of the classroom environment (for example, environmental support for children's engagement), it also has items that assess teacher or caregiver competencies (for example, how teachers/caregivers respond to children's distress and promote children's engagement).

What does it measure?

The TPITOS measures **skills**. Specifically, it includes 13 items that assess teacher and caregiver behaviors and the classroom environment as they relate to supporting and promoting the social-emotional development of infants and toddlers. Items address, for example, whether teachers/caregivers interact with and respond to children, whether teachers/caregivers support children's interactions and engagement, the set-up of the environment, and whether teachers engage parents in supporting children's social-emotional development.

The TPITOS also includes 11 "red flags" (practices that are inconsistent with the Pyramid Model) that address teacher/caregiver behaviors with children (for example, whether the teacher/caregiver uses a flat affect when interacting with teachers, whether the teacher/caregiver speaks harshly to children).¹

How is it administered?

The TPITOS comprises a two-hour observation followed by 20-minute interview with the teacher/caregiver.

Cost:^b

- TPITOS manual: \$55
- TPITOS Tool: \$35

Training costs can be obtained from Brookes Publishing.

Are there any training requirements?

TPITOS observers must complete at least three days of training on the Pyramid Model intervention prior to attending the TPITOS reliability training. To be trained on the TPITOS, observers must attend a two-

^a The Pyramid Model is a conceptual framework of evidence-based practices designed to promote young children's social and emotional development. It emphasizes a tiered approach to intervention – providing universal supports to all children and targeted and intensive services to those who need them.

^b Cost information was obtained on February 28, 2019 from the Brookes Publishing website.

day reliability training conducted by the developers and must pass the developers' certification standards for implementing and scoring.

What are some examples of the evidence for the measure's reliability and validity with I/T teachers and caregivers?

Materials reviewed did not include any research related to the measure's reliability and validity.

Reference

¹Bigelow, K. M., Carta, J. J., Irvin, D. W., Hemmeter, M.L. (2019). The Teaching Pyramid Infant-Toddler Observation Scale (TPITOS) for Infant-Toddler Classrooms, Research Edition. Baltimore: Paul H. Brookes.

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