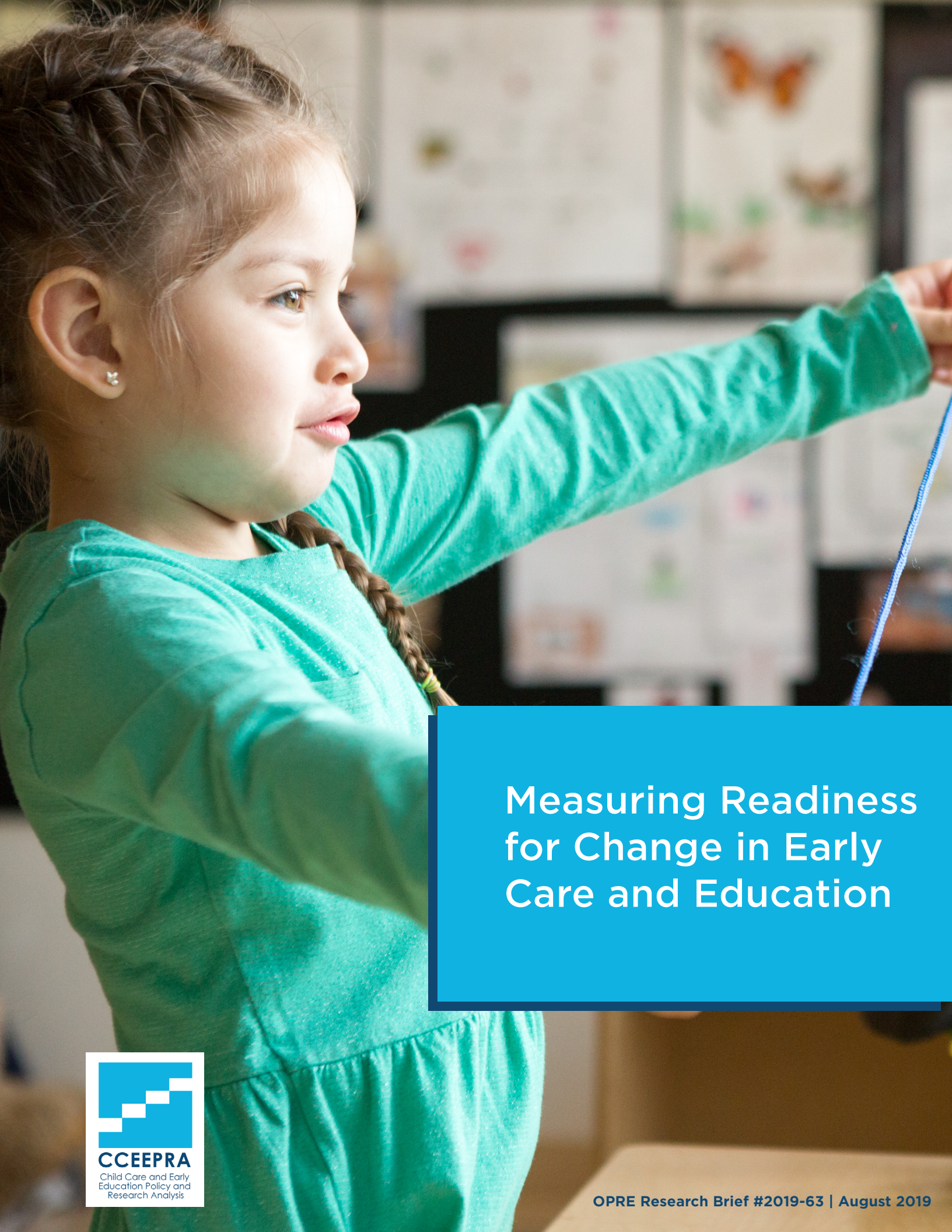

Measuring Readiness for Change in Early Care and Education

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Measuring Readiness for Change in Early Care and Education

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Overview

Introduction

Researchers and policymakers in the early care and education (ECE) field are interested in understanding the factors that contribute to successful quality improvement (QI) initiatives in ECE settings. They also want to learn about factors leading to improved outcomes for children and families through successful QI initiatives. One factor posited to influence the success of such initiatives is the readiness of individuals and organizations to adopt new quality improvement practices (Kirk, Wanless, & Briggs, 2017; Maxwell, Partika, Wanless, Pacchiano, Halle, Hsueh, & Maher, 2018). In this brief, "readiness" is defined as a characteristic of a person, group of individuals, or organization that captures at a particular point both the *willingness* and the *capacity* to take on a new practice or perform an existing practice in a new way. The measurement of readiness within ECE studies is still not widespread, partially due to a lack of access to readiness measures tailored for use in ECE settings and with early childhood professionals. However, ECE researchers have begun to develop new readiness tools and adapt measures of readiness from other fields of study to address this gap.

Purpose

The purpose of this brief is to provide a framework for understanding readiness within the ECE field and to share examples of how ECE researchers are currently attempting to capture the dimensions of readiness—and factors that support readiness—using different data collection methods and standardized measurement tools. While not an exhaustive list of measurement options, the summary tables provided are meant to share resources that ECE researchers and policymakers may consider when preparing to implement new QI initiatives or when developing future studies of QI initiatives. We conclude by considering several conceptual and measurement issues that might be addressed by further measurement development in the ECE field.

Methods

We identified measures of readiness being used in ECE research and evaluation through a series of discussions with ECE researchers and evaluators who are working on various QI projects in states and nationally. (See Appendix C for OPRE-funded QI projects that contributed to this activity.) We also identified measures of readiness through follow-up online literature searches. In addition, we gathered psychometric information about measures through email and phone contact with researchers and measures developers between June 2018 and November 2018.

Key Findings and Highlights

The review of measures highlights several insights about the current state of readiness measures used in ECE studies of quality improvement initiatives.

- Although the definition of readiness is composed of two components (willingness and capacity), we found only one measure that captures both elements.
- Eight readiness measures have been developed explicitly for use in early care and education settings and with the ECE workforce.
- Several readiness measures have been adapted from other fields. The psychometric properties of any new or modified readiness measures should be assessed within the ECE context.
- There appear to be fuzzy boundaries between direct measures of readiness and factors associated with readiness (collectively referred to in this brief as *factors affecting readiness*). More work is needed both conceptually and empirically to distinguish readiness from other related constructs.

Introduction

Researchers and policymakers in the early care and education (ECE) field are interested in understanding the factors that contribute to successful quality improvement (QI) initiatives in ECE settings. They also want to know more about improved outcomes for children and families through successful QI initiatives. One factor posited to influence the success of such initiatives is the readiness of individuals and organizations to take on new QI practices (Kirk, Wanless, & Briggs, 2017; Maxwell, Partika, Wanless, Pacchiano, Halle, Hsueh, & Maher, 2018; Wanless & Domitrovich, 2015). Understanding and measuring readiness to change in ECE settings can help researchers and policymakers identify some of the factors that may facilitate (or hinder) the success of an initiative throughout its implementation. Program implementers may be able to use information about readiness to tailor their support for individuals and teams and make adjustments to the implementation of a QI intervention to achieve the desired outcomes.

Purpose of this brief

The goal of sharing a summary of measurement options for assessing readiness at the individual and organizational levels at this juncture is to provide a resource that the ECE research community can build upon in the future. However, given the limited information on the psychometric properties of many of these measures (some of which have been adapted for use in the ECE context), researchers and policymakers are urged to exercise caution in their selection and use of readiness measures.

Despite its importance, few studies currently include readiness as a distinct construct within a QI initiative's theory of change. As a result, few researchers intentionally include measures of readiness in their studies of program or policy effectiveness. Part of this gap is due to a lack of knowledge about and availability of measures of readiness deemed appropriate for use in ECE settings. The purpose of this brief is to raise awareness of the concept of readiness and to share information about possible measurement tools and methods that could be used to capture readiness at multiple levels of the ECE system. We also discuss issues relevant for future measurement development.

This brief provides an overview of definitions of readiness, noting distinctions between *individual* readiness, *organizational* readiness, and *system* readiness. We also share examples of how ECE researchers are currently attempting to capture the dimensions of readiness, and factors that support or hinder readiness, through different data collection methods and standardized measurement tools. While not an exhaustive list of measurement options, the summary tables provided share resources that ECE researchers and policymakers may want to consider when developing future studies of quality improvement initiatives. We conclude this brief by considering several conceptual and measurement issues that might be considered when preparing to implement new QI initiatives in the ECE field.

Why Care about Readiness?

Across multiple disciplines, readiness to change has been theorized as an important component contributing to the success of interventions and quality improvement efforts. The study of readiness to change has a long history in the fields of business (Cameron & Green, 2009; Rafferty et al., 2013), health care (Prochaska, DiClemente, & Norcross, 1992; Weiner, Amick, & Lee, 2008), and occupational and organizational psychology (Herscovitch & Meyer, 2002), but has received relatively less attention in early childhood (Peterson, 2013). However, with the recent proliferation of QI initiatives in the field of early childhood, readiness to change has become more salient as a potential explanatory element for understanding the outcomes of QI initiatives.

Currently, the role of readiness in the effectiveness of QI initiatives in the early childhood field has a stronger theoretical basis than an empirical one. Nevertheless, a few recent studies demonstrate the

usefulness of considering readiness to change when examining the implementation of QI initiatives. For example, Roberts and colleagues reported that readiness to change, along with the related factor of psychological anxiety, was associated with multiple indicators of "responsiveness" to an online coaching intervention among early childhood educators (Roberts, LoCasale-Crouch, DeCoster, Hamre, Downer, Williford, & Pianta, 2015). Furthermore, in this same study, readiness to change was found to moderate the association between classroom characteristics and early childhood educators' responsiveness to the coaching intervention (Roberts et al., 2015).

However, another study by Wanless and colleagues found that a series of measures collectively thought to capture "readiness to implement with fidelity" (e.g., observed emotional support, teacher-rated use of intervention practices, teacher-rated self-efficacy, teacher-rated collective responsibility, etc.) was not directly related to observed measures of fidelity of implementation two years later (Wanless, Rimm-Kaufman, Abry, Larsen, & Patton, 2015). Although not in the early childhood field, a study by Jones and colleagues tested and found support for the theoretical linkages between employees' perceptions of organizational culture and individual levels of readiness to change, which were in turn predictive of "implementation success" of the initiative (Jones, Jimmieson, & Griffiths, 2005). This same study also reported that pre-implementation levels of readiness for change among employees exerted a positive main effect on employees' satisfaction post-implementation. These studies suggest that readiness to change can be relevant to both intervention fidelity and impact, either directly or indirectly, although there is some variability in the influence of readiness on these outcomes.

Defining Readiness at Multiple Levels

In this brief, "readiness" is defined as a characteristic of a person, group of individuals, or organization that captures at a particular point both the willingness and the capacity to take on a new practice or perform an existing practice in a new way. This definition indicates that readiness involves two important subcomponents: a *willingness* to engage in a new activity, and the *capacity* to participate in a new activity, given existing resources (Peterson, 2013).[1] Furthermore, willingness and capacity to change are, in turn, affected by multiple contextual factors: beliefs and attitudes, social systems and relationships, current and persistent stressors, and personal or organizational characteristics (see Figure 1). We call these, collectively, *factors affecting readiness*.

[1] We acknowledge that other researchers categorize the dual subcomponents of readiness as pertaining to *cognitive* and *affective* aspects of readiness (Rafferty, Jammieson, & Armenakis, 2013).

Figure 1. Conceptual Model for Readiness and Factors Affecting Readiness

As Peterson (2013) notes, readiness is also understood to manifest within individuals, organizations, and systems. Individual readiness is defined as "the extent to which an individual or individuals are cognitively and emotionally inclined to accept, embrace, and adopt a particular plan to purposefully alter the status quo" (Holt, Armenakis, Feild, & Harris, 2007, p. 235). Organizational readiness has been defined as "organizational members' change commitment and self efficacy to implement organizational change" (Weiner, Amick, & Lee, 2008, p. 68). System readiness is the holistic state of preparedness of a system to meet a situation and carry out a planned sequence of actions. Within an ECE context, "system" refers to how multiple ECE settings and organizations work together to provide services. System readiness requires assessment of the readiness of each component part of the system and the level of integration of the component parts within the system (Austin & York, 2015).

In some QI initiatives, such as those that use a cohort model for professional development or engage interdisciplinary collaborative teams in their intervention, it is also important to consider team readiness. Team readiness captures the idea that "cognitions and affects of individuals … become shared because of social interaction processes and …manifest as higher level collective phenomena" (Rafferty, Jimmieson, & Armenakis, 2013, p. 116). It is believed that team readiness can feed into organization-wide readiness for change; team and organizational readiness also interact with individual readiness (Rafferty et al., 2013).

Although system readiness and team readiness are important to consider when implementing a quality improvement effort, for the remainder of this brief, we focus on individual and organizational readiness in particular.[2] Within an ECE context, individual readiness is assessed among early childhood educators, directors, and support staff; in some cases, parents of participating children may also be assessed for readiness. Organizational readiness addresses readiness from a program-wide perspective, aggregating data from multiple employees' perceptions of the organization's capacity to support change. An organization's capacity to support change includes the organization's infrastructure, material resources, and leadership support for the new activity; it also includes employees' perceptions of the overall "climate" of the organization in terms of commitment to quality improvement and support for staff to make individual and collective changes to practice.

[2] The study of improvement of ECE systems (e.g., multiple ECE organizations) is not as prevalent as the study of how individuals and organizations make improvements in quality or practice; therefore, we limit our review to measures of individual and organizational readiness, which are of primary interest to ECE researchers and policymakers at this point. Measures of team readiness would be relevant at this time; however, measures of this construct were not located.

Measuring Readiness at the Individual and Organizational Levels in ECE Settings

Early childhood researchers are eager to identify valid and reliable measures of individual and organizational readiness for use in their studies of QI initiatives. However, there are few tools that have been developed specifically for early childhood settings, and even among tools that have been developed in other fields, few have evidence of strong psychometric properties (Weiner, Amick & Lee, 2008). Given the early stages of measuring readiness within ECE initiatives, we offer here a sampling of how researchers are currently attempting to measure these constructs within the early care and education field. The goal of sharing a summary of measurement options for assessing readiness at the individual and organizational levels at this juncture is to provide a resource for the ECE research community that can be built upon in the future. However, given the limited information on the psychometric properties of many of these measures (some of which have been adapted for use in the ECE context), researchers and policymakers are urged to exercise caution in their selection and use of measures. By sharing this information, we also hope to spur further discussion about how best to include measures of readiness in ECE studies of QI initiatives.

Methods

Readiness measures identification and classification

We identified measures of readiness being used in ECE research and evaluation through a series of discussions with ECE researchers and evaluators who are working on various QI projects in states and nationally,[3] as well as through follow-up online literature searches. The identified measures were then assessed within the framework of readiness presented in this brief organized by *willingness* and *capacity* and the four categories of factors affecting readiness (see Appendix A), and by *individual* and *organizational* readiness (see Appendix B). We gathered additional psychometric information about measures through email and phone contact with researchers and measures developers between June 2018 and November 2018.

Orientation to the readiness measurement summaries

We offer two summaries of readiness measurement in ECE in appendices A and B, respectively. Appendix A is the *Readiness Measures Matrix*. The summary tables in Appendix A are organized according to the two components of readiness and the four categories of factors affecting readiness shown in Figure 1 in this brief. Within each category, specific indicators are identified, and data sources currently being used by ECE researchers to capture those indicators are noted. Many of these measurement methods are being used, or considered for use, in data collection efforts for recent OPRE-funded projects aimed at evaluating QI initiatives. (See Appendix C for further information about these OPRE-funded QI projects.)

While Appendix A is organized by indicator of readiness, Appendix B is organized by measurement tool. Appendix B contains an *Annotated Bibliography of Standardized Readiness Measures* that includes all cited measures in Appendix A. The tools are organized alphabetically for both measures of individual readiness and organizational readiness. In addition to the full name of the measure and a citation, additional information is provided, including the purpose of the measure, constructs covered by the measure, and number of items contained in the measure. Where possible, we provide some psychometric information about each measure.

It is important to note that these summaries of measurement options in appendices A and B are not

[3] See Appendix C for OPRE-funded QI projects that contributed to this activity.

exhaustive and do not connote endorsements. They were compiled over a series of conversations with ECE researchers and evaluators working on various QI projects in states and nationally, and the compilations are being offered here to share information with the field as a resource. Individual researchers should review all possible measures and determine for themselves which one best meets their needs. They should also exercise caution with regard to the limited psychometric information available about some of these measurement options.[4]

Findings and Discussion

Initial observations regarding readiness measures used in ECE

An examination of the information in Appendix A indicates that there are very few readiness measures currently being used in ECE research that measure the dual constructs of willingness and capacity. The subcomponent of *capacity* appears to be captured through qualitative interviews with ECE staff, review of administrative data, or the development of survey items particularly geared toward information about organizational resources and preparedness for a particular initiative. Qualitative methods are also often used to capture factors affecting readiness, such as beliefs and attitudes and personal and organizational characteristics associated with readiness. There are ample quantitative measures that capture the more affective readiness component of *willingness*, as well as beliefs and attitudes, social systems and relationships, and current and persistent stressors that affect readiness.

Inspection of Appendix A also indicates that some measures are not used exclusively to determine readiness directly; they also measure constructs that could be considered factors affecting readiness. An example is the Psychological Safety Survey (Edmondson, 1999), which is identified as both a measure of openness to change (i.e., an indicator of the component of willingness) and a measure of beliefs and attitudes associated with readiness to change. Indeed, psychological safety has been claimed as both an *element of* readiness (Wanless, 2018) and a f*actor that co-occurs with* readiness (Wanless, Shafer, & Davis, 2018). The fuzzy boundaries between direct measures of readiness and correlates of readiness is a topic we will consider in more detail in the next section of this brief.

Another observation gleaned from reviews of appendices A and B is that, although several measures currently being used by ECE researchers have been adapted from related fields, such as education and mental health (e.g., Bay Area School Reform Collaborative Teacher Survey Scale, Stanford University, 2002; Teacher's Efficacy Scale, Hoy & Woolfolk, 1993; University of Rhode Island Change Assessment Scale, McConnaughy, Prochaska, & Velicer, 1983), at least eight measures have been developed explicitly for use in early learning settings and with the ECE workforce (Bloom, 2010; Bloom, 2015; Bloom, 2017; Ehlrich et al., 2018; Horsley & Fong, 2017; Peterson, Baker & Weber, 2010; VandeWiele, 2001; Wanless, 2014). For example, an ECE setting's readiness for change can be assessed using the Early Childhood Work Environment Survey (Bloom, 2010) or the Assessment of a School's Readiness to Change (Wanless, 2014). Similarly, leadership in ECE settings (considered a factor affecting readiness) can be measured by both the Director's Role Perception Survey (Bloom, 2017) and the Preschool Instructional Leadership Scale (Horsley & Fong, 2017).

Further considerations for conceptualizing and measuring readiness in ECE

Recent interest in the role of individual and organizational readiness in the success of early childhood quality improvement initiatives has spurred the development and use of readiness measures in studies

[4] As noted above, measures developers were contacted between June 2018 and November 2018 to obtain psychometric information on measures for which this information was not otherwise readily accessible. Researchers were contacted about psychometric information on adapted measures during this same time period. The notation in Appendix B indicating psychometric information is "not available" does not necessarily mean that this information does not exist; it means that the authors of this brief were not able to obtain the information to include in the brief by November 2018. This designation is distinct from the notation of "none," which indicates that the authors definitively know that no psychometric information is available on a particular measure or adapation of a measure.

of ECE quality improvement initiatives, as indicated in the appendices of this brief. Yet, measurement of readiness in ECE settings is still new, and a consideration of conceptual and methodological issues with the current state of readiness measurement is warranted.

Conceptual issues

As noted above, there seems to be some ambiguity regarding whether a particular measurement instrument is a direct measure of readiness or is measuring distinct factors that are associated with readiness, such as psychological safety, leadership, or organizational climate. Where does the construct of readiness end and these other related constructs begin? Weiner and colleagues (2008) propose that readiness to change should be specific to a particular change referent (for example, a particular quality improvement effort), and that a general capacity to change is better conceptualized as organizational culture or climate. Indeed, some ECE studies currently use measures of organizational climate, for example, as a proxy for organizational readiness for change (see Appendix C). Other researchers, however, claim that it is possible to measure an organization's *general* capacity to change separate from a *specific* capacity to change a particular practice or process (Holt, Armenakis, Harris, & Feild, 2007; Meyers, Durlak & Wandersman, 2012; Scaccia, Cook, Lamont, Wandersman, Castellow, Katz, & Beidas, 2015). It is possible that quality improvement efforts in ECE will require both a general measure of readiness as well as a measure specific to the change referent. For example, if the quality improvement effort is focused on improving math instruction in early childhood settings, it may be important to assess individual and organizational readiness for taking on the specific math activities, in addition to assessing the organization's general capacity to take on any new instructional activities.

Current efforts in developing measures of readiness in ECE settings have focused on readiness to support social and emotional learning (Maxwell, Partika, Wanless, Pacchiano, Halle, Hsueh, & Maher, 2018). Future work should clarify whether there are meaningful distinctions between measures of readiness to change and measures of characteristics closely associated with readiness to change. Furthermore, future research should explore the level of specificity needed to understand readiness. Such research should address the extent to which readiness is dependent on what programs are trying to get ready for (Wanless & Domitrovich, 2015).

Another conceptual issue that deserves further consideration is the association between the different levels of readiness. For example, how does organizational readiness support change for an individual, and how does individual or team readiness support an organization's overall capacity for change? Some theoretical work describes interactions between individual and organizational readiness as well as the relationships among antecedents and outcomes of readiness (Rafferty et al., 2013), but we do not yet have conceptual models that situate these relationships within the broader context of implementation of a quality improvement initiative. It is possible that readiness plays either a mediating or moderating role in achieving quality improvement outcomes, similar to what has been found for the related construct of psychological safety (Edmondson & Lei, 2014). Future conceptual work is needed to better articulate the role of both individual and organizational readiness within a theory of change for quality improvement efforts in ECE settings.

Measurement issues

Although the definition of readiness is composed of two components (willingness and capacity), there is no one quantitative measure that captures both elements. Rather, most measures capture either the psychological component of *willingness* to change or the behavioral component operationalized by an individual's or an organization's perceived *capacity* to implement change (Weiner et al., 2008). For the sake of parsimony, it would be helpful to have a single measure that captures both elements of readiness. However, given that it is likely that separate measures will be needed to capture both individual and organizational readiness, researchers will likely need to consider using multiple readiness measures in their research regardless.

Another consideration is the timing of data collection on readiness. It is important to note that although readiness is often considered during the planning or early implementation stages of an

initiative, it should be assessed throughout the entire life course of an initiative and not just at major milestone decision points (Austin & York, 2015). However, not all measures are designed to be used at all stages of the change process. Researchers should consider whether a quantitative readiness measure they choose is sensitive to change over time and whether their research design permits assessment of readiness at multiple stages of implementation. Researchers should also consider the use of qualitative methods, such as focus groups, key informant interviews, and document review for ongoing monitoring of readiness, and factors associated with readiness throughout the life of a QI initiative.

In addition, several of the measures noted in this brief have been adapted from other fields. As such, the psychometric properties of any new or modified readiness measures should be assessed within the ECE context.

Finally, researchers should also consider whether and how to operationalize *system readiness* in early care and education. As several significant quality improvement initiatives are targeted at the systems level (e.g., state early childhood professional development systems, state quality rating and improvement systems), it seems appropriate to consider capturing system readiness for QI initiatives. Further conceptual and measurement development is needed in this area.

Further considerations for ECE practice

Beyond measuring readiness for research purposes, these measures are important for guiding and customizing the implementation of a QI effort (Weiner et al., 2008). How individuals or programs perform on a readiness measure at a given point provides important information to technical assistance providers who can use this information to tailor their support for effective implementation of a new practice. Measures of readiness should not be used to determine whether a program or individual is "ready" for a new practice or way of conducting an existing practice, but rather as a tool that can determine goodness of fit of a particular QI intervention for an organization, or the level and nature of tailored support an individual or organization needs to engage successfully in a particular QI initiative. In sum, readiness information can be used to indicate that an individual, group of individuals, or the entire organization needs a higher level of support for the current intervention, or a different type of intervention altogether.

Readiness measures can also provide contextual information for understanding fidelity to a new practice at the individual, team, and/or organizational levels, and can serve as a barometer for the "implementation environment" conducive to the take-up and spread of evidence-based interventions (Bumbarger, 2015). When readiness measures are incorporated into implementation and impact evaluations, they can help researchers, program developers, and policymakers understand findings regarding the quality of program implementation as well as program effectiveness and impact. Future implementers and other stakeholders should aim to use readiness information to support ECE programs and a diverse ECE workforce in their efforts to improve quality practices and better child outcomes (Peterson, 2013).

Conclusion

The concept of readiness to change has received little attention within the field of early care and education until recently (cf. Kirk, Wanless, & Briggs, 2017; Maxwell, Partika, Wanless, Pacchiano, Halle, Hsueh, & Maher, 2018; Wanless, Groark, & Hatfield, 2015). The measurement of readiness within ECE studies is still not widespread, partially due to lack of access to readiness measures tailored for use in ECE settings and with early childhood professionals. However, ECE researchers have begun to develop new readiness tools and adapt measures of readiness from other fields of study to address this gap. This brief summarizes measurement tools and strategies that ECE researchers are currently using to capture both individual and organizational readiness for quality improvement initiatives in early childhood settings. We note that at least eight standardized measures have been developed for

use in ECE settings. While not an exhaustive list, we share this information as a resource to the field and in the hopes of encouraging further development, validation, and use of readiness measures in ECE research and program evaluation, and in the implementation of QI initiatives. This information may also encourage further conceptual work to incorporate readiness into our theories of change for quality improvement in early childhood programs, policies, and systems.

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Appendix A. Readiness Measures Matrix

Readiness consists of two dimensions—willingness and capacity (Peterson, 2013). An individual's or organization's willingness and capacity to change is affected by multiple contextual factors: *beliefs and attitudes, social systems and relationships, current and persistent stressors,* and *personal or organizational characteristics*. We call these factors, collectively, factors affecting readiness. These may, in turn, be measured through various indicators using quantitative or qualitative methods. The summary tables in this appendix are organized according to the two categories of readiness and the four categories of factors affecting readiness shown in Figure 1 in this brief. Within each category, specific indicators are identified, and data sources currently being used or considered by ECE researchers to capture those indicators are noted. Many of these measurement methods are being used, or considered for use, in data collection efforts for recent OPRE-funded projects aimed at evaluating QI initiatives. See Appendix C for further information about these projects.

It is important to note that the summaries of measurement options in this appendix are not exhaustive and do not connote endorsements. They were compiled over a series of conversations with ECE researchers and evaluators working on various QI projects in states and nationally, and the compilations are being offered here to share information with the field as a resource. Individual researchers should review all possible measures and determine for themselves which one best meets their needs. They should also exercise caution with regard to the limited psychometric information available about some of these measurement options (see Appendix B for psychometric information on measures).

Table A1. Readiness Components: Willingness & Capacity

Indicator	Readiness Component	Level	Data Sources	
			Qualitative	Quantitative
Openness to change	Willingness	Organizational	Interview with program directors	Psychological Safety Survey (Edmondson, 1999) Assessment of a School's Readiness for Change (Wanless, 2014) Readiness for Change Scale (Holt, Armenakis, Feild & Harris, 2007)
Stage of change	Willingness	Individual		Stage of Change Scale for Early Education and Care 2.0 (Peterson, Baker, & Weber, 2010)
				Adapted University of Rhode Island Change Assessment (URICA, McConnaughy, Prochaska, & Velicer, 1983)
Center capacity	Capacity	Organizational	Interview with program directors	Survey items
			Review of application to participate in QI Survey items	

Table A2. Beliefs & Attitudes

Indicators	Level	Data Sources	
		Qualitative	Quantitative
Beliefs about professional development	Individual	Interview with teachers, directors	Adaptation of the Teachers' Attitudes about Professional Development (TAP; Torff, Sessions, & Byrnes, 2005)
Beliefs about target of the QI initiative	Individual		Beliefs around Social and Emotional Learning survey (adapted from Brackett et al., 2012) Adapted Teacher Beliefs Scale for Coaches (Burts et al., 2000; Charlesworth et al., 1993)
	Organizational		Assessment of a School's Readiness for Change (Wanless, 2014)
Commitment to professional development	Organizational	Interview with program directors Review of application to participate in QI	Early Childhood Work Environment Survey (Bloom, 2015) Early Learning Mentor Coach (ELMC) Survey (Howard et al., 2011) Assessment of a School's Readiness for Change (Wanless, 2014) Head Start CARES End-of-Year Reflections
Goals for participation in the QI initiative	Individual	QI participant focus group	Survey items
			Adaptation of LA Advance Questionnaire
	Organizational	Review of application to participate in QI Interview with program directors	Survey items
Ideas to address anticipated challenges	Organizational	Review of application to participate in QI Survey items	
Inquiry practices	Organizational		Psychological Safety Survey (Edmondson, 1999)

Table A2, cont. Beliefs & Attitudes

Indicators	Level	Data Sources	
		Qualitative	Quantitative
Motivation for participation in the QI initiative	Individual	Interview with program directors Survey items Interview with program directors	Survey items Adaptation of LA Advance Questionnaire
Perceived alignment of initiative with other QI priorities	Organizational	Review of application to participate in QI Interview with program directors QI participant focus group	Readiness for Change Scale (Holt, Armenakis, Feild & Harris, 2007)
Perceived alignment of QI with personal goals	Individual		Survey items
Psychological safety	Organizational		Psychological Safety Survey (Edmondson, 1999) Q-CCIIT Caregiver Self-Administered Questionnaire Early Childhood Work Environment Survey (Bloom, 2015)

Table A3. Social Systems & Relationships

Indicators	Level	Data Sources	
		Qualitative	Quantitative
Collaboration	Organizational		Adapted Psychological Safety Survey (Edmondson, 1999) School Conditions—Teacher Learning Community Subscale, Bay Area School Reform Collaborative Teacher Survey Scale (BASRC; Stanford University, 2002) Early Ed Essentials (Ehlrich et al., 2018) Survey of Organizational Functioning Cohesion Subscale (Texas Christian University Institute of Behavioral Research, 2008)
Commitment to goals/shared vision	Organizational		Early Childhood Work Environment Survey (Bloom, 2015)
Communication	Organizational		Survey of Organizational Functioning (Texas Christian University Institute of Behavioral Research, 2008)
Organizational culture	Organizational		Early Childhood Work Environment Survey (Bloom, 2015) Items from NCES SASS 2011-2012 Teacher Survey LA Advance Administrator Survey Early Ed Essentials (Ehlrich et al., 2018) Q-CCIIT Caregiver Self-Administered Questionnaire
Leadership	Organizational	Review of application to participate in QI	Chicago Consortium for School Research Teacher Survey Preschool Instructional Leadership Scale (PILS; Horsley & Fong, 2017) Early Ed Essentials (Ehlrich et al., 2018)
	Individual		
Local/state policies to support intervention topic	Organizational		Assessment of a School's Readiness for Change (Wanless, 2014)
Positive community relationships	Organizational		Assessment of a School's Readiness for Change (Wanless, 2014)

Indicators	Level	Data Sources	
		Qualitative	Quantitative
Staff relationships/ support	Organizational	Bay Area School Reform Collaborative Teacher Survey Scale (Stanford University, 2002)	Early Childhood Work Environment Survey (Bloom, 2015) Assessment of a School's Readiness for Change (Wanless, 2014)
Trusting relationship with director, supervisor, other staff, and coach	Individual		Early Childhood Job Satisfaction Survey (Bloom, 2010) Adapted LA Advance Questionnaire Early Ed Essentials (Ehlrich et al., 2018) UPCOS-5 Teacher Interview

Table A4. Current & Persistent Stressors

Indicators	Level	Data Sources	
		Qualitative	Quantitative
Burnout/stress	Individual		Maslach Burnout Inventory—Educator's Survey (Maslach, 1997; Maslach, Jackson, & Leiter, 1996) Kessler Distress Scale (Kessler & Mroczek, 1992; Kessler et al., 2002) Assessment of a School's Readiness for Change (Wanless, 2014)
	Organizational		
Job benefits	Organizational		Administrative data Early Childhood Work Environment Survey (Bloom, 2015)
Staff salaries	Organizational		Survey items
Staffing/ turnover	Organizational		Administrative data Items from ECE-ICHQ Center Director Questionnaire

Table A5. Personal & Organizational Characteristics

Indicators	Level	Data Sources	
		Qualitative	Quantitative
Allocation of time for PD	Organizational	Interview with program directors Review of application to participate in QI Survey items	Early Childhood Work Environment Survey (Bloom, 2015) Survey items
Content knowledge related to the QI initiative	Individual		Adapted Beliefs about Infant-Toddler Education and Care (BAITEC; adapted version by Valloton, based on Anderson, 2015) Knowledge of Infant Development Inventory (KIDI, MacPhee, 1981)
	Organizational	Review of application to participate in QI Interview with program directors	Assessment of a School's Readiness for Change (Wanless, 2014)
Data systems & use of data	Organizational	Review of application to participate in QI Interview with program directors Survey items	Head Start CARES End-of-Year Reflections
Education and training qualifications	Individual		Q-CCIIT Caregiver Self-Administered Questionnaire Surveys of program staff Early Learning Mentor Coach (ELMC) Survey (Howard et al., 2011)

Table A5, cont. Personal & Organizational Characteristics

Indicators	Level	Data Sources	
		Qualitative	Quantitative
Resources available for planning	Organizational	Interview with program directors Discussions with QI facilitators	Early Learning Mentor Coach (ELMC) Survey (Howard et al., 2011) Head Start CARES Coach Trainer Log Adapted LA Advance Questions Q-CCIIT Caregiver Self-Administered Questionnaire
Professional educator identity	Organizational		Assessment of a School's Readiness for Change (Wanless, 2014)
	Individual	Interviews	
Self-efficacy	Individual		Segments of Early Childhood Teaching Inventory (ECTI, VandeWiele, 2001) Segments of Directors' Role Perception Survey (Bloom, 2017) Stage of Change Scale for Early Education and Care 2.0 (Peterson, Baker, & Weber, 2010) Teachers' Sense of Efficacy Scale or adaptations (Hoy & Woolfolk, 1993)
	Organizational		Assessment of a School's Readiness for Change (Wanless, 2014)
Structural center characteristics (e.g., venue type, child age range served, hours of operation, and others)	Organizational	Review of application to participate in QI Interview with program directors	
Successful implementation history	Organizational		Assessment of a School's Readiness for Change (Wanless, 2014)
Technology literacy	Individual		Adaptation of Administrator Technology Survey, 2014

Appendix B. Annotated Bibliography of Readiness Measures

This appendix provides basic information about readiness measures at the individual and organizational levels, corresponding to measures noted in Appendix A of this brief. It is important to note that the summaries of measurement options in this appendix are not exhaustive and do not connote endorsements. They were compiled over a series of conversations with ECE researchers and evaluators working on various QI projects in states and nationally, and the compilations are being offered here to share information with the field as a resource. Individual researchers should review all possible measures and determine for themselves which one best meets their needs. They should also exercise caution with regard to the limited psychometric information available about some of these measurement options.[5]

Individual Level Measures

Adaptation of the Administrator Technology Survey (Burris, 2014)

- **Purpose:** To assess caregiver's comfort with using technology and online platforms
- **Constructs:** comfort using various technologies
- **Length:** 14 items
- **Reliability:** none
- **Validity:** none

Available at: http://udspace.udel.edu/bitstream/handle/19716/16711/2014_Burris_Jade_DEd.pdf?sequence=1&isAllowed=y

Adapted Beliefs about Infant-Toddler Education and Care (BAITEC; adapted version by Valloton, based on Anderson, 2015)

- **Purpose:** To examine infant-toddler teacher belief as an indicator of child care quality
- **Constructs:** teachers' beliefs about developmentally appropriate education and care
- **Length:** 38 items
- **Reliability:** The author reported high reliability of the measure (Anderson, 2015).
- **Validity:** The author reported good content, convergent, and construct validity (Anderson, 2015).

Original measure available at: https://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1233&context=open_access_dissertations

[5] As noted in the Methods section of this brief, measures developers were contacted between June 2018 and November 2018 to obtain psychometric information on measures for which this information was not otherwise readily accessible. Researchers were contacted about psychometric information on adapted measures during this same time period. The notation in this annotated bibliography indicating that psychometric information is "not available" does not necessarily mean that this information does not exist; it means that the authors of this brief were not able to obtain the information to include in the brief by November 2018. This designation is distinct from the notation of "none," which indicates that the authors definitively know that no psychometric information is available on a particular measure or adaptation of a measure.

Beliefs around Social and Emotional Learning survey (adapted from Brackett et al., 2012)

- **Purpose:** To assess teachers attitudes and support for SEL
- **Constructs:** comfort, commitment, culture
- **Length:** 10 items
- **Reliability:** Reliability of all variables exceed .7 (Collie, Shapka, Perry, & Martin, 2015).
- **Validity:** none

Original measure available at: http://ei.yale.edu/wp-content/uploads/2016/05/Brackett-et-al.-Teacher-SEL-Beliefs-Scale1.pdf

Chicago Consortium for School Research 5Essentials Teacher Survey (University of Chicago, 2018)

- **Purpose:** to identify strengths and weaknesses at the district and school level and better target resources and interventions
- **Constructs:** effective leaders, collaborative teachers, ambitious instruction, supportive environment, involved families
- **Length:** 45 minutes
- **Reliability:** Individual and school level reliability for most measures exceeds .7
- **Validity:** The authors reported evidence for the validity of this measure (Klugman, Gordon, Sebring, & Sporte, 2015)

Available at: https://www.uchicagoimpact.org/sites/default/files/2018%20CPS%205Essentials%20Teacher%20Codebook.pdf

Director's Role Perception Survey, items related to self-efficacy (Bloom, 2017)

- **Purpose:** To assess ECE directors' self-efficacy
- **Constructs:** Director's self-efficacy in leadership, management, and supporting children's learning
- **Length:** 35 items
- **Reliability:** none
- **Validity:** none

The tool is in the pilot phase with the McCormick Center for Early Childhood Leadership at National Louis University.

Early Childhood Job Satisfaction Survey (Bloom, 2010)*

- **Purpose:** To assess child care workers' satisfaction with their jobs
- **Constructs:** Trusting relationship with director, supervisor, other staff, and coach
- **Length:** Approximately 15 minutes
- **Reliability:** The author conducted reliability tests in three separate samples and found the overall internal consistency of the measure ranged from .81 to .9 between the samples. The authors also found high test-retest reliability for each subscale (Bloom, 2016).
- **Validity:** The author reported high face validity, convergent validity, and discriminant validity (Bloom, 2016).

Available at: http://newhorizonsbooks.net/assessment-tools-2/early-childhood-job-satisfaction-survey/

Early Childhood Teaching Inventory (VandeWiele, 2001)

- **Purpose:** To assess teachers' self-perceptions of their abilities in the early childhood environment
- **Constructs:** responsivity, focus, professional knowledge, crisis management
- **Length:** 38 items
- **Reliability:** none
- **Validity:** none

Measure is not readily available but was used in a past OPRE-funded study (Quality Intervention for Early Care and Education; QUINCE).

Kessler Distress Scale (Kessler & Mroczek, 1992; Kessler et al., 2002)

- **Purpose:** To measure stress
- **Constructs:** Burnout, stress
- **Length:** 6 or 10 items—6 items were included in the National Survey of Early Care and Education (https://www.acf.hhs.gov/opre/resource/workforce-classroom-staff-questionnaire-revised)
- **Reliability:** Internal consistency reliability of the original K10 and K6 was .96 and .89, respectively, in a telephone pilot sample (Kessler et al., 2002).
- **Validity:** The K10 was included in the 1997 NSMHWB and the K6 was included in the 1997 NHIS. These data were analyzed against the pilot IRT results to cross-validate the K10 and K6 measures (Kessler et al., 2002).

Available at: https://www.tac.vic.gov.au/files-to-move/media/upload/k10_english.pdf

Knowledge of Infant Development Inventory (KIDI, MacPhee, 1981)

- **Purpose:** To assess the accuracy of parents' and child care workers' knowledge of infant and child development
- **Constructs:** Accurate knowledge of infant and child development
- **Length:** Approximately 15 minutes
- **Reliability:** Internal reliability of the scale for a sample of parents (a description of the parents was not provided by the authors) was .82, and test-retest reliability over a 2-week period for the same **sample of parents was .91 for the number of items accurate (MacPhee, 1981).**
- **Validity:** MacPhee (1981) reported good content validity of the scale, and evidence of construct validity.

This tool is available by contacting the author: David.Macphee@ColoState.EDU

Maslach Burnout Inventory – Educator's Survey (Maslach, 1997; Maslach, Jackson, & Leiter, 1996)

- **Purpose:** To measure burnout among those working in educational settings
- **Constructs:** Burnout, stress – (emotional exhaustion, depersonalization, personal accomplishment)
- **Length:** 22 items
- **Reliability:** All subscales of the MBI, except for the Depersonalization (Factor IV) subscale, were determined to be reliable for use with teachers (Iwanicki & Schwab, 1981).
- **Validity:** In their analysis of the construct validity of the educator survey, Iwanicki and Schwab (1981) found the MBI measured the same constructs as the original MBI.

Available at: https://www.mindgarden.com/117-maslach-burnout-inventory

Preschool Instructional Leadership Survey (Horsley & Fong, 2017)

- **Purpose:** To measure the frequency of instructional leadership behavior
- **Constructs:** effective leadership, professional capacity, instructional guidance
- **Length:** 17 items
- **Reliability:** The author reported item reliability greater than .9, supporting high reliability of this measure (H. Horsley, personal communication, November 29, 2018)
- **Validity:** The author reported that Rasch analysis supported the validity of this measure (H. Horsley, personal communication, November 29, 2018)

This tool is available by contacting the author: hhorsley@mail.fresnostate.edu

Stage of Change Scale for Early Education and Care 2.0 (Peterson, Baker, & Weber, 2010) *

- **Purpose:** To assess teachers' readiness to change
- **Constructs:** Stages of change (pre-contemplation, contemplation, preparation, action, maintenance); attitudes/beliefs about quality improvement/change; teacher self-efficacy
- **Length:** 7-item teacher survey, 7-item coach survey
- **Reliability:** Test reliability of the scale was .93 for a sample of home visitors/mentors from the Partners in Family Child Care (PFCC) project (Montes, Peterson, & Reynolds, 2011)
- **Validity:** The authors reported concurrent and predictive validity with the Child/Home Environmental Language and Literacy Observation (Montes et al., 2011).

Available at: https://www.childrensinstitute.net/

Teachers' Attitudes about Professional Development (Torff, Sessions, & Byrnes, 2005)

- **Purpose:** To assess the extent of teachers' support for professional development initiatives
- **Constructs:** Beliefs about professional development
- **Length:** 5 items
- **Reliability:** The authors reported high internal consistency reliabilities of the measure (Torff, Sessions, & Byrnes, 2005).
- **Validity:** The authors reported satisfactory construct and discriminant validity of the measure compared to other related measures (Torff et al., 2005).

Available at: http://journals.sagepub.com/doi/abs/10.1177/0013164405275664

Adapted Teacher Beliefs Scale for Coaches (Burts et al., 2000)

- **Purpose: To measure teacher beliefs and attitudes toward accepted practices in preschool settings**
- **Constructs:** Developmentally appropriate practice, child-initiated practice, didactic
- **Length:** 15 items
- **Reliability:** not available
- **Validity:** not available

Visit the Family and Child Experiences Survey (FACES) website: https://www.acf.hhs.gov/opre/research/project/head-start-family-and-child-experiences-survey-faces for more information on this measure.

Teachers' Sense of Efficacy Scale (Hoy & Woolfolk, 1993)

- **Purpose:** To assess teachers' self-efficacy
- **Constructs:** Teacher self-efficacy in Student Engagement, Instructional Practices, and Classroom Management
- **Length:** 24 items
- **Reliability:** For a sample of elementary school teachers, reliability of personal teaching efficacy and general teaching efficacy was .77 and .72, respectively (Hoy & Woolfolk, 1993).
- **Validity:** The authors reported good convergent and discriminant validity of the scale, based on previous analyses (Hoy & Woolfolk, 1993).

Available at: https://www.jstor.org/stable/1002017?seq=1#page_scan_tab_contents

University of Rhode Island Change Assessment Scale (URICA; McConnaughy, Prochaska, & Velicer, 1983)

- **Purpose:** To assess readiness to change, originally in the context of substance abuse and mental health
- **Constructs:** Stages of change (pre-contemplation, contemplation, preparation, action, maintenance)
- **Length:** 31 items
- **Reliability:** not available
- **Validity:** not available

Available at: https://www.ncbi.nlm.nih.gov/books/NBK64976/table/A62309/ and at https://web.uri.edu/cprc/psychotherapy-urica/

UPCOS-5 Teacher Interview (Moiduddin, Aikens, Sprachman, Atkins-Burnett, Winston, & Smith, 2011)

- **Purpose:** gather information on key elements of the coaching process
- **Constructs:** relationship with coach; goal-setting; coaching strategies and activities; content of coach interactions
- **Length:** 47 items
- **Reliability:** none
- **Validity:** none

Available at: http://www.first5la.org/files/07110_401.1Design&AnalysisPlan_Final_10062011.pdf

*Can be aggregated and used as a measure of *organizational* readiness

Organizational Level Measures

Adaptation of LA Advance Questionnaire and Administrator Survey

- **Purpose:** to assess the coach-teacher relationship
- **Constructs:** curricula used, type of professional development (PD) received, PD topics, hours per month of PD
- **Length:** 4 items
- **Reliability:** none
- **Validity:** none

Further information available by contacting Emily Moiduddin at Mathematica: emoiduddin@mathematica-mpr.com

Assessment of a School's Readiness for Change – Teacher Version (Wanless, 2014)

- **Purpose:** To assess a school's readiness for change
- **Constructs:** Readiness at the community, school, principal/director, and teacher level
- **Length:** 24 items
- **Reliability:** Inter-item reliability of the assessment was .899 (Kirk, Wanless, & Briggs, 2017)
- **Validity:** not available

This tool is available by contacting the author: swanless@pitt.edu

Early Childhood Work Environment Survey (Bloom, 2015)

- **Purpose:** To assess the organizational climate of an early childhood program
- **Constructs:** Psychological safety; organizational culture; commitment to professional development; allocation of time for professional development; commitment to goals/shared vision; openness to change
- **Length:** Approximately 15 minutes
- **Reliability:** The author conducted reliability tests in two samples and found the overall internal consistency of the measure was .93 and .95, respectfully. The authors also found evidence for test-retest reliability for the measure (Bloom, 2016).
- **Validity:** The author reported high concurrent validity and discriminant validity of the measure (Bloom, 2016).

Available at http://newhorizonsbooks.net/assessment-tools-2/early-childhood-work-environment-survey/

Early Ed Essentials (Ehrlich, Pacchiano, Stein, & Wagner, 2018)

- **Purpose:** To measure organizational supports essential for change within school- and community-based ECE settings
- **Constructs:** Effective instructional leaders, ambitious instruction, collaborative teachers, involved families, parent voice, and supportive environment
- **Length:** 100 items for staff survey, 54 items for parent survey
- **Reliability:** The authors reported that most measures on the staff and parent surveys scored above .8, suggesting high reliability of both surveys (Ehrlich et al., 2018b).
- **Validity:** The authors reported acceptable internal validity on all measures (Ehrlich et al., 2018b).

Visit the project website (https://www.theounce.org/what-we-do/research/programs/five-essentials-early-ed-surveys/) for more information about accessing the tool.

Early Learning Mentor Coach (ELMC) Survey (Howard et al., 2011)

- **Purpose:** To assess coaches' commitment to professional development
- **Constructs:** Background and experience of coaches; preparation for the ELMC initiative; the approach to coaching; the goals and the content for coaching; any perceptions about the effectiveness of coaching; challenges and facilitating factors about coaching
- **Length:** Approximately 30 minutes
- **Reliability:** none
- **Validity:** none

Available at https://www.acf.hhs.gov/sites/default/files/opre/early_learning_mentor_coach_elmc_coach_survey_508.pdf

Head Start CARES Coach Trainer Log

- **Purpose:** To assess the teacher's view of the relationship with the coach
- **Constructs:** teachers' experience with coaching
- **Length:** 3 items
- **Reliability:** none
- **Validity:** none

Further information available by contacting Emily Moiduddin at Mathematica: emoiduddin@mathematica-mpr.com

Items adapted from the ECE-ICHQ Center Director Questionnaire

- **Purpose:** To obtain information from ECE directors about their organization
- **Constructs:** staffing structure, minimum education requirements for staff
- **Length:** 7 items about staffing; 5 items about minimum education of different staff
- **Reliability:** none
- **Validity:** none

Available at https://www.reginfo.gov/public/do/PRAViewIC?ref_nbr=201501-0970-002&icID=218410

NCES SASS 2011–2012 Teacher Survey, items related to organizational culture (Cox, Parmer, Strizek, & Thomas, 2017)

- **Purpose:** To obtain information from teachers about organizational culture
- **Constructs:** class organization
- **Length:** 12 items
- **Reliability:** The authors reported good internal consistency reliability (Wolfe, Ray, & Harris, 2004).
- **Validity:** The authors reported evidence of structural validity of the measure (Wolfe et al., 2004).

Available at: https://nces.ed.gov/surveys/sass/pdf/1112/SASS4A.pdf

Psychological Safety Survey (Edmondson, 1999)

- **Purpose:** To assess the organizational climate of an early childhood program
- **Constructs:** Psychological safety; openness to change; knowledge seeking; collaboration; problem-solving
- **Length:** 7 items
- **Reliability:** The author reported adequate internal consistency reliability on most measures. Reliability was low for context support, .65, and team efficacy, .63 (Edmonson, 1999)
- **Validity:** The author did not establish discriminant validity but did establish construct and face validity of some measures (Edmondson, 1999).

Available at http://journals.sagepub.com/doi/abs/10.2307/2666999

Readiness for Change Scale (Holt, Armenakis, Feild & Harris, 2007)

- **Purpose:** To assess readiness for change
- **Constructs:** Alignment of initiatives with other QI priorities
- **Length:** 59 items
- **Reliability:** Reliability exceeded .7 on all scales except for Personal Valence (.66 and .65; Holt, Armenakis, Feild, & Harris, 2007)
- **Validity:** The authors reported convergent validity for all scales, some evidence of predictive validity, and incremental validity for the readiness factors (Holt et al., 2007).

Available at http://journals.sagepub.com/doi/abs/10.1177/0021886306295295

School Conditions—Teacher Learning Community Subscale, Bay Area School Reform Collaborative Teacher Survey Scale (Stanford University, 2002)

- **Purpose:** To understand the teacher learning community
- **Constructs:** Collaboration; staff relationships/support
- **Length:** 5 items
- **Reliability:** Reliability on the Teacher Learning Community Subscale exceeded .8 across four years of reporting (2002, 2003, 2004, 2005).
- **Validity:** not available

Available at https://crceducation.stanford.edu/system/files/basrc-teacher-survey-scale2005_0.pdf

Survey of Organizational Functioning (Texas Christian University Institute of Behavioral Research, 2008)

- **Purpose:** To assess job attitudes, workplace practices, and organizational readiness for change
- **Constructs:** Collaboration; communication
- **Length:** 129 items, but can be broken down into multiple domains
- **Reliability:** not available
- **Validity:** not available

Available at: http://ibr.tcu.edu/wp-content/uploads/2013/06/SOF-sg.pdf

Q-CCIIT Caregiver Self-Administered Caregiver Questionnaire (Atkins-Burnett, Monahan, Tarullo, Xue, Cavadel, Malone, Akers, 2015)

- **Purpose:** to gather information about caregivers' experience and the structural features of classrooms and family child care settings
- **Constructs:** classroom characteristics, caregiver characteristics
- **Length:** 31 items
- **Reliability:** none
- **Validity:** none

Available at: https://www.acf.hhs.gov/sites/default/files/opre/measuring_the_quality_of_caregiver_child_interactions_for_infants_and_0.pdf

Appendix C. OPRE Project Descriptions

This appendix includes summaries of current projects funded by the Office of Planning, Research, and Evaluation that are considering the construct of readiness in their studies of QI initiatives. The following are highlights of overall projects, as well as brief summaries of measures beings used to capture readiness at the individual and/or organizational levels.

Culture of Continuous Learning (CCL) Project: A Breakthrough Series Collaborative for Improving Child Care and Head Start Quality, 2016–2019

https://www.acf.hhs.gov/opre/research/project/creating-a-culture-of-continuous-quality-improvement-in-child-care-and-head-start-settings

This project explores how child care and Head Start programs can improve the quality of services young children receive, while institutionalizing continuous quality improvement activities. The project assesses the feasibility of implementing a continuous quality improvement (CQI) methodology, the Breakthrough Series Collaborative (BSC), to promote the uptake and sustainability of evidence-based practices for social and emotional learning (SEL) in both child care and Head Start settings.

The BSC is a unique method designed to improve the uptake, sustainability, and spread of evidence-based practices. A BSC includes five key elements: (1) the Change Framework; (2) Multi-Level Inclusive Teams; (3) Expert Faculty; (4) a Shared Learning Environment; and (5) the Model for Improvement. BSC teams meet regularly and include program directors, teachers, and parents. The BSC groups are designed to create a shared learning environment in which CQI strategies are used to test research-based practices and make adjustments based on short-term, informal data collection. The goal is to influence changes in the culture, climate, structures, and leadership within ECE settings as well as the knowledge, skills, beliefs, and attitudes of practitioners participating in the BSC.

In 2018, a BSC focused on supporting children's SEL within eight ECE settings (4 Head Start, 4 child care) in an East Coast, urban area began. A study to assess the feasibility of implementing a BSC is being conducted alongside implementation to better understand whether a BSC can successfully improve SEL practices in ECE programs. The project uses an embedded case study design and data from multiple sources at multiple timepoints, across all phases of implementation of the BSC. The feasibility study aims to understand organizational and individual characteristics that relate to feasibility, and the supports within the BSC that are associated with progress towards improvement.

The project's individual level readiness measures include the Early Job Satisfaction Survey, Teachers' Sense of Efficacy Scale, Director's Role Perception Survey, Maslach Burnout Inventory, and their Team Selection Questionnaire. The project's organizational level readiness measures include the Psychological Safety Survey, Early Childhood Work Environment Survey, and their Team Selection Survey.

The project is being conducted through a contract with Child Trends and its subcontractors the University of Massachusetts-Boston, JRA Consulting, Ltd., and the Center for the Study of Social Policy.

Development of a Measure of the Quality of Caregiver-Child Interactions for Infants and Toddlers (Q-CCIIT), 2010–2014

https://www.acf.hhs.gov/opre/research/project/development-of-a-measure-of-the-quality-of-caregiver

The goal of this project was to develop a new measure to assess the quality of child care settings, specifically the quality of caregiver-child interactions for infants and toddlers in non-parental care. The new measure is sensitive to the developmental levels of children ages birth to 3 years as well as to adult behaviors that are responsive and stimulating for this age group. In addition, it is appropriate for use across different types of child care settings (i.e., center-based and family child care homes) as well as for both single- and mixed-age classrooms. Key tasks included (1) assessing the state of the measurement field related to child-adult interactions and quality of care settings for infants and toddlers; (2) developing a measure to assess the quality of child-caregiver interaction in infant-toddler care settings; and (3) conducting psychometric testing to ensure the soundness of the measure for diverse populations and settings, including settings serving low-income families, settings having ethnic/racial diversity in caregivers and children, settings with children from non-English speaking households, and settings with children with disabilities.

The project's individual level readiness measures include the Q-CCIIT Caregiver Self-Administered Questionnaire, Stages of Change Self-Report, adapted LA Advance Questionnaire, UPCOS-5 Teacher Interview, KIDI, CES-D-10 Short Form Scale, Kessler 6 Self Report Measure, selected items from BAITEC, new items from the Q-CCIIT Program Director Questionnaire, and adaptations of the Administrator Technology Survey and the Teacher Opinion Survey. The project's organizational level readiness measures include the Q-CCITT Caregiver Self-Administered Questionnaire, new items from the Q-CCIIT Program Director Questionnaire, and an adaptation of LA Advance Administrator Survey.

Study of Coaching Practices in Early Care and Education Settings (SCOPE), 2016–2019

https://www.acf.hhs.gov/opre/research/project/study-of-coaching-practices-in-early-care-and-education-settings

This contract was awarded to Mathematica Policy Research in partnership with Child Trends and the Children's Learning Institute at the University of Texas Health Science Center at Houston. The study is exploring how coaching practices are implemented and vary in ECE classrooms serving children supported by Child Care and Development Fund (CCDF) subsidies or Head Start grants. This project aims to advance understanding of how core features of coaching are implemented in ECE classrooms, how they may vary by key contextual factors, and which are ripe for more rigorous evaluation. Tasks include: (1) establishing an empirically supported conceptual model for the project, (2) designing and conducting a descriptive study to examine the occurrence and variability of coaching features in ECE classrooms, and (3) conducting case studies to examine program- or systems-level drivers of coaching and the features being implemented.

The project's individual level readiness measures includes adaptations of the Early Learning Mentor Coach (ELMC) Survey, the Family and Child Experiences Survey (FACES), LA Advance Questionnaire, Head Start CARES Coach Trainer Log, and the Early Childhood Teacher Survey. The project's organizational level readiness measures include the ECWES Short Form Teacher Survey and adaptations of items from ELMC, the National Survey of Early Care and Education (NSECE), LA Advance, and FACES.

Variations in Implementation of Quality Interventions: Examining the Quality-Child Outcomes Relationship in Child Care and Early Education (VIQI), 2016–2021

https://www.acf.hhs.gov/opre/research/project/variations-in-implementation-of-quality-interventions-examining-the-quality-child-outcomes-relationship

The VIQI study is testing how different levels and features of classroom quality relate to children's developmental outcomes. The study examines the relationship between initial child care and early education (CCEE) classroom quality and changes in observed quality and children's outcomes through a rigorous experimental design.

Questions about the quality-child outcomes relationship will be addressed in the context of an in-depth implementation study to determine the conditions necessary to plan, install, and implement an evidence-based intervention that will produce changes in process, domain-specific quality and child outcomes. CCEE classrooms will include those in Head Start, child care and public-K programs serving children ages 2–4, not yet in kindergarten. The study is being conducted through a contract with MDRC and its subcontractors Abt Associates/Abt SRBI, Frank Porter Graham Child Development Institute, and MEF Associates.

The project's individual level readiness measures include the Stages of Change Scale 2.0, Teachers' Sense of Efficacy Scale, Maslach Burnout Inventory, and an adaptation of the Teacher Beliefs Scale. Its organizational level readiness measures include the NCES SASS 2011-2012 Teacher Survey, Chicago Consortium for School Research Teacher Survey, ECE ICHQ Center Director Questionnaire, Assessment of a Preschool's Readiness for Change, and Readiness for Change Scale.