WHAT IS THE BEST WAY TO ASSESS QUALITY IN CHILDCARE TO UNDERSTAND ITS INFLUENCE ON CHILDREN?

Ratib Lekhal

Norwegian Business School, Department of Communication and Culture, C4I-038, Nydalsveien 37, 0484 Oslo, Norway

Abstract

Demand for childcare has been growing rapidly over the last few decades, leading to a rapid increase in the proportion of children who attend centre-based childcare. In turn, this has led to current questions about how we can ensure that the centres continue to offer high-quality care while expanding rapidly. This paper describes how quality is defined in the literature and different methods that have been used to measure quality, as well as discussing the advantages and limitations of the different methods. Finally, the paper discusses which method is the best way to assess quality in childcare in order to understand its influence on children.

Key words: *childcare, quality, children, influence*

Introduction

Demand for childcare has been growing rapidly over the last few decades. The early childhood education and care policies of the European Union (EU) have therefore focused on increasing the quantity of childcare services (European Commission, 2010/2011). Today, more than 50% of all children in the Western world experience some form of non-maternal care prior to school entry (UNICEF Innocenti Research Centre, 2008). Norway has also seen increased demand for childcare. Ensuring full access to centre-based childcare for the entire child population from the age of one is a priority of the Norwegian government. Since 2008, children in Norway have had the right to centre-based childcare from age one, but centre-based childcare is not compulsory (Ministry of Education, 2010). This major welfare reform, with a budget of approximately $3 billion as of 2009, has led to a rapid increase in the proportion of children who attend centre-based childcare. In 2001, only 38% of one- and two-year-olds were in centre-based childcare, while today, 79% of all one- and two-year-olds and 96% of three- to five-year-olds attend centre-based childcare (Statistics Norway, 2013).

The large increase in the proportion of children who attend centre-based childcare has led to great concern among scientists, parents, and public officials about how we can ensure that the centres prove high-quality care while simultaneously undergoing a rapid expansion (Tveitereid, 2008; Major et al., 2011). Some argue that the large increase of centres will affect the quality (Østrem, 2009), while others believe that it will not affect care. Guldbrandsen and Eliassen (2013), for example, found no change in care quality due to structural change from 2002 until 2012. However, there are major differences in both how different researchers define *quality* and in how they believe quality should be measured (Nordahl, Kostøl, Sunnevåg, Knudsmoen, &Vigmostad, 2013).

This paper seeks to describe how the concept of *quality in childcare* is often defined in the literature. Furthermore, this paper describes different methods or ways of measuring quality and discusses the advantages and limitations of the different methods. Finally, it discusses whether it is possible to highlight one optimal way to measure quality in centre-based childcare.

The Concept of Quality in Childcare

Quality in childcare can be defined as comprising both aspects of the environment and the experience children have in childcare (Layzer & Goodson, 2006). The concept of quality in the relevant literature is often applied globally. The concept, however, is more accurately understood as including both

structural elements and process elements (Lamb & Ahnert, 2006). Even though different studies use different measures of quality, commonalities exist across studies (Dalli et al., 2011).

Structural quality refers to factors such as the number of staff, staff training and education, the extent to which children are organised into relatively smaller or larger groups, the quality of the physical environment (both internal space and outside areas), the availability of teaching resources—e.g., well-equipped playrooms (NICHD ECCRN, 2002)—and planned curriculum. Although these factors may not have a direct effect on children, they facilitate or limit the ability, motivation, and opportunities for the pedagogical staff to provide quality processes in the childcare centre (Dalli et al., 2011; Layzer & Goodson, 2006; NICHD ECCRN, 2002). A lower child-to-staff ratio in interaction with group size, for instance, has been found to predict higher quality experiences—e.g., sensitive and positive care giving and a high number of quality, individualised interactions between children and adults (Layzer & Goodson, 2006; Leach, Barnes, Malmberg, Sylva, & Stein, 2008). Two reviews of the empirical literature have supported these assumptions, citing evidence supporting the importance of child-to-adult ratios, group size, and formally trained caregivers in particular (Bradley & Vandell, 2007; Dalli et al., 2011).

These variables are important, as policymakers can regulate many of them. However, while structural factors may provide what is needed for high-quality care, they do not guaranty high-quality childcare. Process indicators of quality, based on observations of social interaction and communication in the childcare environment, are usually preferred as a supplement to structural indicators.

The term *process quality* refers to the more proximal exposures of the child and encompasses the quality of the relationships and of the socio-pedagogical interactions between educators and children, among educators, between educators and parents, and between the children in the institution (Layzer & Goodson, 2006). More specifically, it seeks to answer questions like the following: How do the teachers meet and interact with children? What experiences do children encounter in childcare? To what extent are adults engaged in and sensitive to children's needs and interests? What opportunities do children have to learn and develop, both in relation to their own learning goals and the goals of society? The importance of process quality is supported by a large body of research, which links participation in high-quality childcare programs to short- and long-term outcomes, such as cognitive and linguistic development in children and the prevention of antisocial behaviour (Dalli et al., 2011; OECD, 2010).

Measuring Quality in Childcare, from Macro to Micro Level

To examine how quality in childcare usually assessed in the childcare literature, we can look at the different ways of assessing quality in care as a one dimensional graph—going from quality at the macro level to quality at the micro level.

There are many different ways to assess quality in childcare; however, they often fall into three categories. The first category often refers to measuring quality on the macro level. At this level, the structural quality of childcare is assessed, and it has previously been the most common way to assess quality. Today, most measures are designed to examine the global quality of childcare arrangements. These measures produce a combined rating based on observations of routines, practices, facilities, and equipment—and use both process and structural indicators. At the micro-level, end of the spectrum, we find measures that seek to assess individual children's experience. Detailed assessments of process indicators are also well suited to examine through intervention studies.

Measuring Structural Indicators

On the highest level, childcare quality can be measured only by recording structural and caregiver characteristics (e.g., group size, level of education of caregivers, etc.). This approach has often been used in large-scale surveys or studies, like the *National childcare survey* (Hoffert et al., 1991) and "National longitudinal survey of youth" (Blau, 1999). The advantages of this approach are that it is

inexpensive and easy to administer, and it therefore gives researchers the opportunity to collect large samples. In addition, such studies are well suited to examine "universal interventions" and policy regulations, because they allow the examination of qualities that can be regulated through regulations, budgets, and policies. For example, Romano, Kohen, and Findlay (2011) found that children enrolled in government-regulated childcare showed less physical aggression than children in unregulated care. Quality in government-regulated childcare was defined as comprising a small group size, a minimum level for staff education, a reasonable adult-to-child ratio, and a safe and sanitary building.

Research shows that settings that score high on structural quality indicators usually also receive a higher score on process measures and on global quality scales (Dalli et al., 2011). Structural quality indicators have also been positively linked to children's development. However, the link has been shown to go through process quality and not directly affect children's development (NICHD, 2002). Structural and regular components may therefore allow opportunities to provide quality processes in childcare centres, but these will not provide high process quality with any certainty (Dalli et al., 2011; Turnbull, Anthony, Justice, & Bowles, 2009).

There is an increasing understanding in the literature that this approach to measuring quality has some limitations. For instance, it is difficult to know if the relation between structural indicators and process indicators is a result of a possible unknown third variable (e.g., curriculum or centre policy; Blau, 2000). The latest recommendation in the literature is to measure both structural and process indicators. Thus, the literature assumes that a stronger case for the high-quality of the childcare examined is made if both structural and process indicators are measured.

Measuring Global Childcare Quality

Global quality ratings fall between more general measures of structural qualities and in-depth observations that target specific activities and experiences. They combine both structural and process elements and often evaluate the overall quality of care without focusing on individual teachers or children. Today, there are several well-known measures in the literature that examine the global quality of childcare settings. Some of the most commonly used measures are the "Early Childhood Environment Rating Scale", the "Infant/Toddler Environment Rating Scale", the "Classroom Assessment Scoring System", and the "Observational Record of the Caregiving Environment".

Global quality ratings are today the most widely used type of measure found in the literature and are positively associated with child outcomes, such as cognitive and language development (Dalli et al., 2011). However, effects range from very small to moderate. Recent studies have therefore questioned if global quality measures are adequate to the research tasks being undertaken (Burchinal, Kainz, & Cai, 2011; Camilli, Vargas, Ryan, & Barnett, 2010; Dickison et al., 2011; Keys et al., 2013).

Even if global quality ratings are highly used and well recognised way of assessing quality in childcare, they also have some limitations; however, not all measures share all of these limitations. For instance, individual children may have different experiences in childcare. Global quality ratings may not detect important differences in individual children's experiences when they measure what is happening in the whole group and do not focus on individual teachers or children. Furthermore, global composite score combine the physical environment of the centre, social experiences of the children and staff, and working conditions for staff. Some of these areas may have greater influences on children's development than others. For example, the NICHD Early Child Care Research Network (2005) found staff's warmth and sensitivity affects children's behaviour development; in addition, warmth and sensitivity are necessary for children to feel secure. In turn, security is essential for learning.

However, security in itself is not necessarily enough to ensure that children learn. Learning requires good stimulation. Few, if any, of the global quality measures include instructional practices, such as explaining vocabulary and sentence structures (Burchinal et al., 2011). The composite score of global measures may therefore underestimate effects, since they do not measure instruction in specific content areas. More targeted scales and detailed descriptions of childcare processes may better

pinpoint settings that support children's learning than global ratings and may provide greater understanding into the mechanisms that foster healthy development (Keys et al., 2013; Dickinson et al., 2011).

Detailed Assessments of Process Indicators

More specific and detailed observations of processes in childcare attempt to capture the dynamics of care by capturing the essence of the experience a child has in childcare. These observations are more narrowly focused and often provide an in-depth assessment of one aspect of the processes that can be directly linked to children's skills. More specifically, such observations try to capture the experience of children, the activities in which children and caregivers engage, caregiver interaction with children, and children's behaviour in play with other children. Such things could, for instance, be measured by examining the microstructure of the relationship between the teacher's uses of sophisticated language, such as analytical discussion of books, or the amount and diversity of peer talk on children's language development.

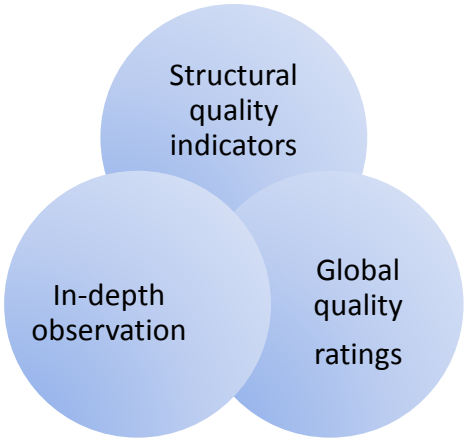
Methods that can be used and that are well suited to in-depth observation of quality in childcare are, for example, videotaping teacher-led circle time, then transcribing the amount and diversity of talk, or taking an audio recording during reading time, then transcribing the amount of analytical discussion. Alternatively, one could examine the specific qualities of interest through randomised control intervention studies, which provide the advantage of the opportunity to examine causal relationships. An intervention study could be carried out by, for instance, evaluating the effect of stimulating the staff's language interaction with children. The intervention could target a certain behaviour that is central to children's language learning. This intervention could, for example, be to change teachers' practices during circle-time or when reading, and then to evaluate the effect of the intervention on children's language skills.

In-depth observations of process quality may detect larger effects on children's development as they measure instruction in specific content areas (e.g., language) (Keys et al., 2013; Dickinson et al., 2011). Nevertheless, in-depth observations of process quality do not answer all childcare questions. One limitation is that such methods are often limited to a small number of settings. It is therefore often unclear whether the findings can provide generalisations that can be transferred to other settings. Another limitation is the focus on one child. When the focus is on the interactions between one adult and one child, it is difficult to determine if individual characteristics of the child influence the amount or type of interactions observed. A more global approach to examining quality could limit this problem, since we cannot assume that an individual child will display quality characteristics that characterise the whole group of children. Furthermore, the data gathered through in-depth observations are often too narrow to answer the more general questions; however, this is not the intention.

Discussion

The goal of this paper was to discuss *the best way to assess the quality of childcare and to understand its influence on children.* As I have argued in this paper, all methods have different advantages and limitations. I therefore believe that it is not possible to select one single measure or method to capture the phenomena of quality in childcare. Figure 1, below, illustrates that the different methods discussed in this paper are in fact overlapping rather than competing methods. In the first circle, we find large-scale studies that gather and assess structural quality indicators. Such studies clearly have some advantages; however, they also have some limitations. These limitations can be made up for by global quality ratings. However, as we have seen, global quality ratings also have some limitations that in turn require more in-depth observations. Thus, the methods are in some way complementary.

Figure 1.



Researchers' choice of methods should depend on their research questions rather than on their beliefs and ideologies. The researchers have to ask themselves if the questions are on the macro or micro level before choosing a method or measure. Furthermore, the focus of the research should also direct the choice of method or measure. If the research is about children's vocabulary growth, it may be that measuring instruction in specific situations is more suited to the task than measuring structural quality indicators. A combination of structural and global quality scales, as well as specific interactions not measured by these scales (e.g., focus and depth of instruction within the content area), is recommended if researchers wish to thoroughly understand childcare's influence on children.

Finally and most importantly, we must turn the ongoing debate—which is largely based on ideologies and is an old discussion, outdates in most countries other than Norway—to focus increasingly on how to utilise the potential of childcare and the opportunities we have to strengthen children's wellbeing, curiosity, and knowledge during their years in childcare.

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